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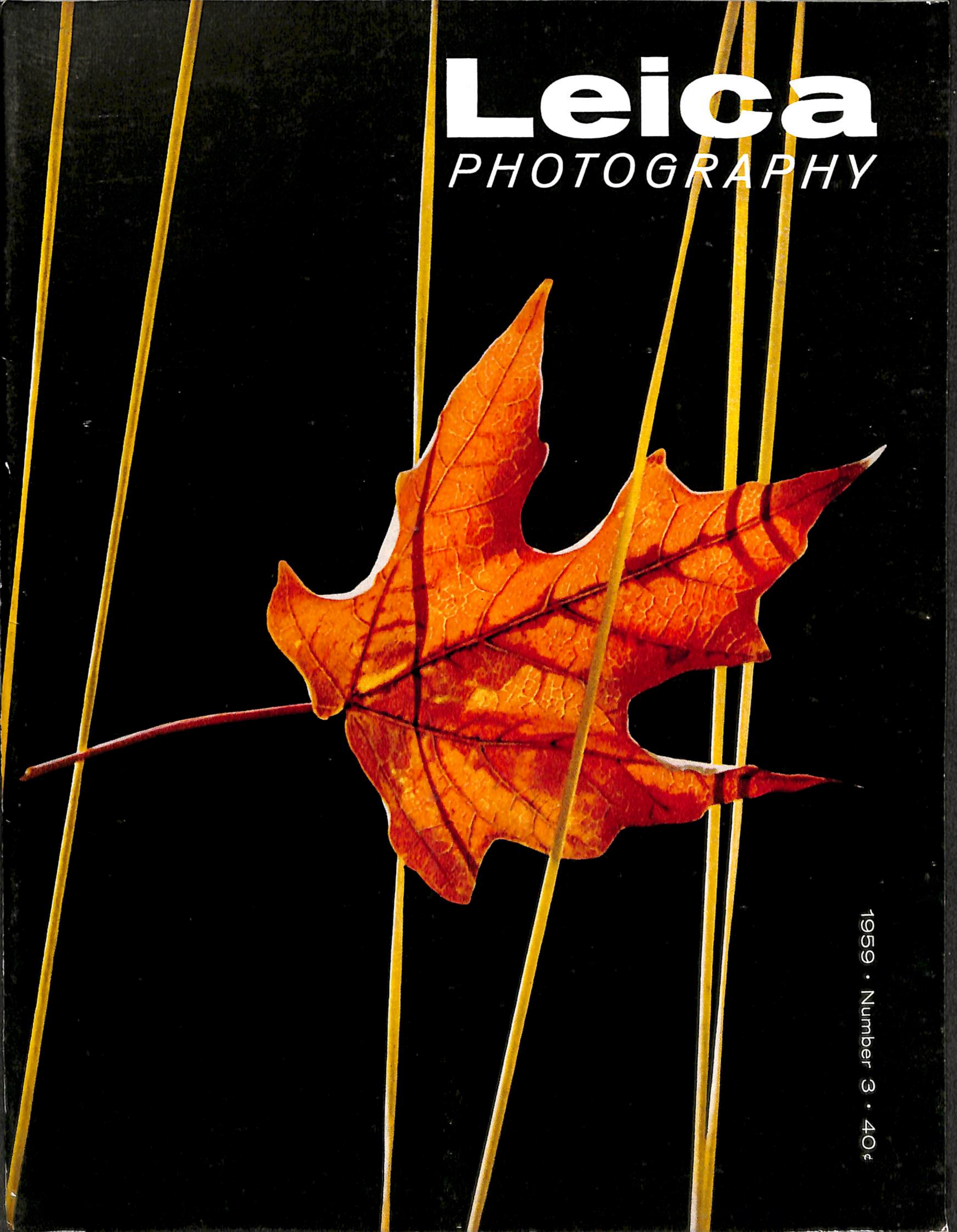
PHOTOGRAPHY



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Leica
PHOTOGRAPHY®

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EDITOR . . . . Kenneth Poli
EDITORIAL BOARD . . . . Eugene C. Anderegg
William H. Mann
Bob Schwalberg
Helen Wright

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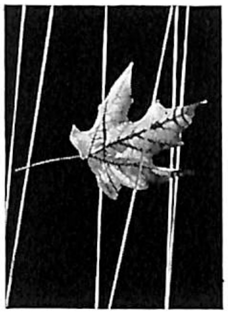
The editors are happy to consider original articles on photography with the Leica and photographs taken with Leica cameras and lenses. All manuscripts and photographs should be accompanied by stamped, self-addressed return labels.



COVER

Michael J. Abandond

Apparently a picture of a drifting autumn leaf caught in some reeds, this photograph is actually an ingenious "set-up" shot. The "reeds" are really strands of plastic clothesline strung on a porch. Carefully composed by Abandond, the picture is backlighted by the sun against an out-of-focus deep-shadow background. M-3, Visoflex, 125mm Hektor, and tripod; 1/50 second at f/6.3 on Type A Kodachrome converted for daylight.

◀ INSIDE COVER

Willi Klar

An Arab in a window plus a textured wall form an interesting picture captured at a distance by Klar, who used a 135mm Hektor, Visoflex and Bellows on his Leica to record the scene on Isopan FF, f/11 at 1/100 second.

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one-man show

KEN HEYMAN, photojournalist

If you ask Ken Heyman when he decided to be a professional photographer, he will tell you somewhat paradoxically that even after almost 20 years of working with the medium (he is now 28) he never really decided to be a photographer, he just seems to be busy being one.

This may be because to Heyman taking pictures is an act of genuine human involvement. And most people agree that the special impact of a Ken Heyman photograph is the essential humanity of his insight. A photograph to him can be an emotional drama. When he walks down any New York City street, he plays a mental game of "seeing," as he calls it. It is a game of putting meaning and form into what he sees and then interpreting it photographically. He not only thinks, he feels with a camera. By the time he reaches for one of his Leicas, he has already established some rapport with his subject. When he has the story on contact sheets, he doesn't stop there. He is a perfectionist regarding not only his equipment but the printing of his pictures. He is almost fanatically precise about the right tonal relationships of his prints, and the rare print quality he is able to achieve gives an artistic wholeness to his work.

Heyman's first photograph won a First Prize. This was at the age of eight. And since then the steps that have led him to recognition by the critics as a first-rank photographer have been logical steps in the development of his own personality, background and experience.

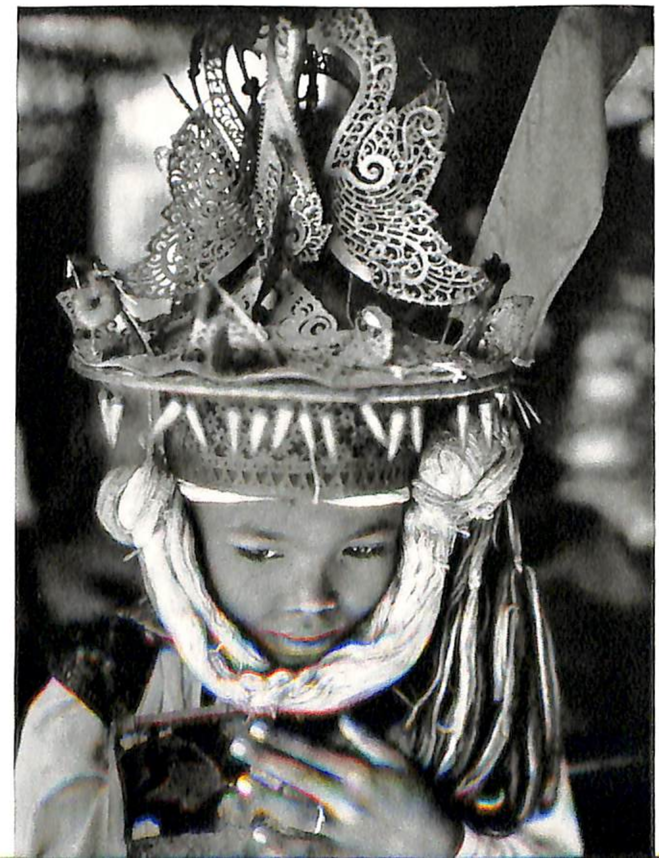
The years that he spent as an amateur gave him a technical competence that today makes the actual mechanics of picture taking almost automatic. His curiosity about people in varying situations and environments led him to major in sociology and anthropology at Columbia University. He received his bachelor's degree in 1956, after a two-year interruption of his studies for Army service. It was after his discharge from the Army and during his last two years at Columbia that he began to take a serious view of photography. A summer in Europe in 1954 also was important in developing his awareness of the camera as a means of personal communication.

He had his first exhibit in November of 1956 at the Limelight Gallery in New York City. The following year he was selected as one of five talented young photographers to work for "Life" on an experimental basis. However, in November of that year he was asked by Dr. Margaret Mead to join her anthropological group going to Bali to investigate recent cultural developments, a study for which Heyman provided the photographic documentation. He extended the itinerary to cover Japan, Hong Kong and India as a free-lance photojournalist.

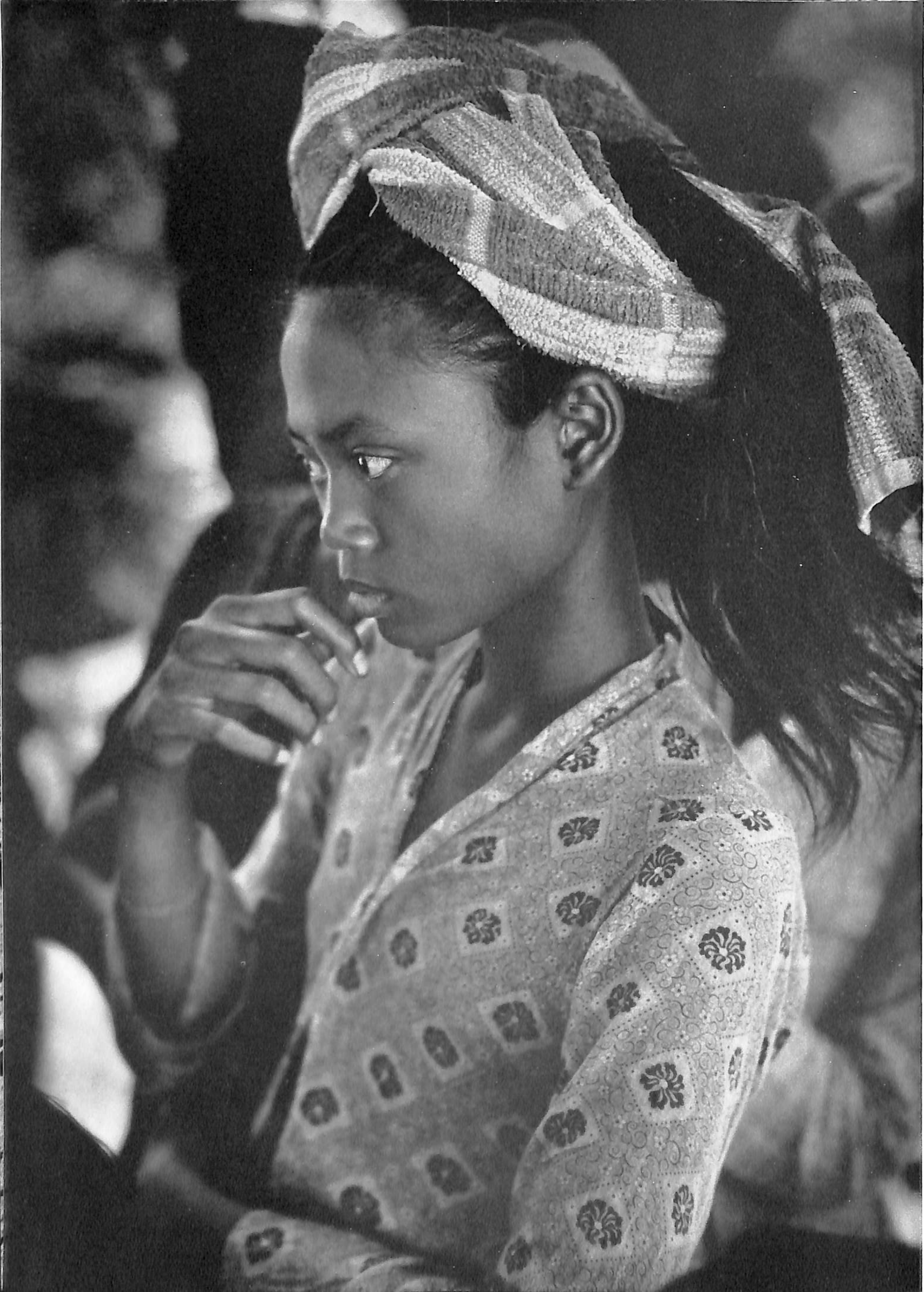
This trip to the Orient resulted in his second exhibition at the Limelight Gallery in February of 1958 and gave him his first really important recognition.

Heyman's assignments this year have already taken him to Australia, New Zealand and Africa. This winter he plans a trip to Mexico to do photographic work on another anthropological expedition. But even though he is an enthusiastic world traveler, his photographs do not merely emphasize the exotic scene; they most significantly portray a warmth and understanding of people in customary or commonplace situations, no matter what the setting.

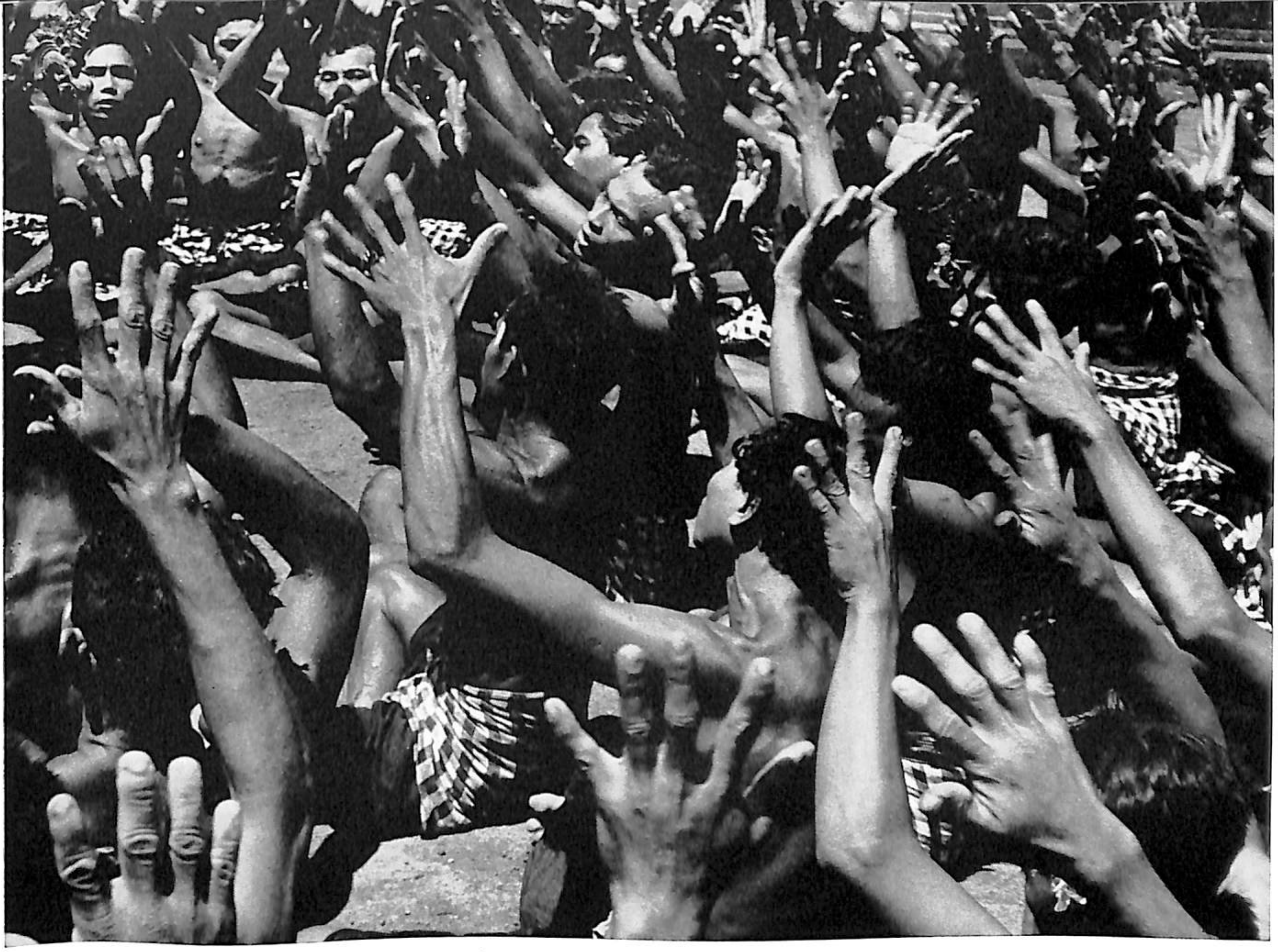
Ceremonial headdress on Balinese boy.



African hand on potter's wheel. Close-up of Dual-Range Summicron, 1/30 second at f/2.



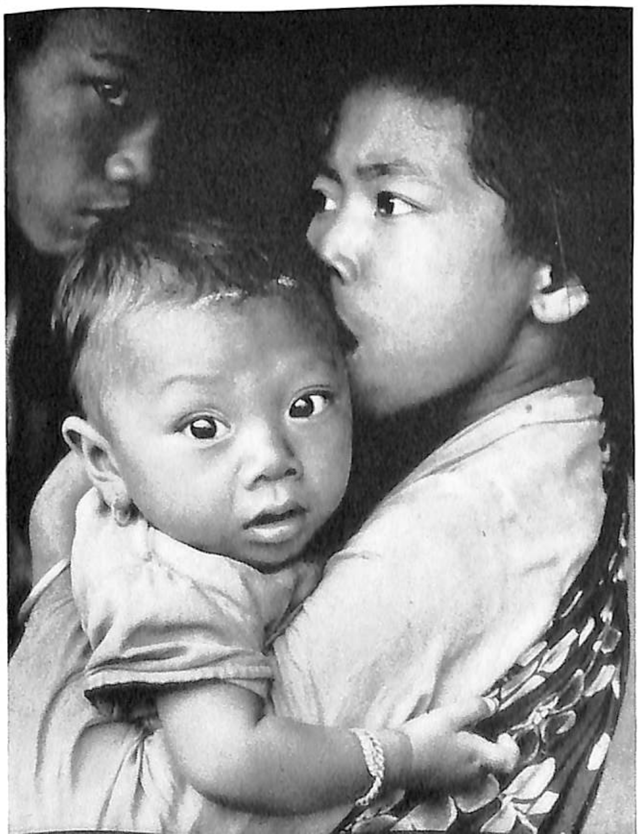
Balinese girl with towel, a common headdress in Bali. 35mm Summaron.



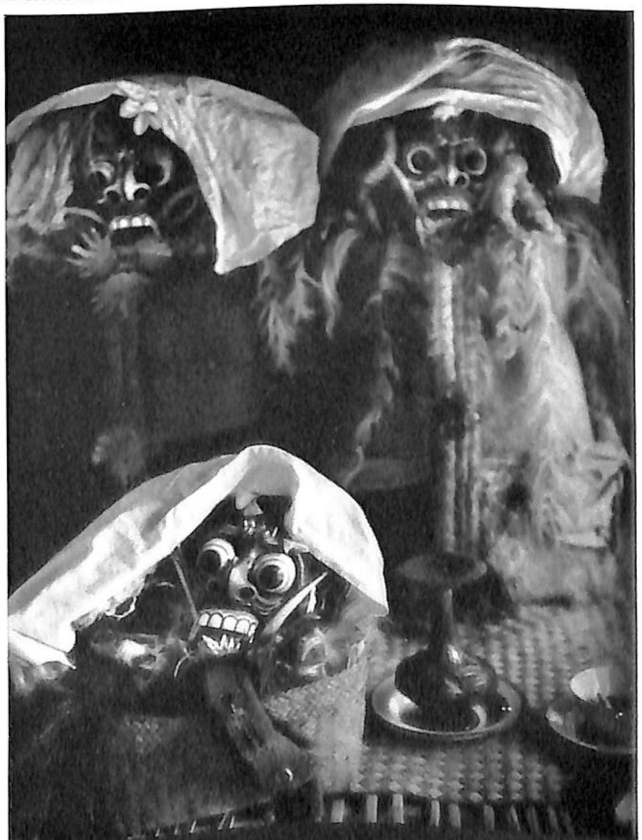
Balinese monkey dance. Dancers sit and sway while chanting. 35mm Summaron.

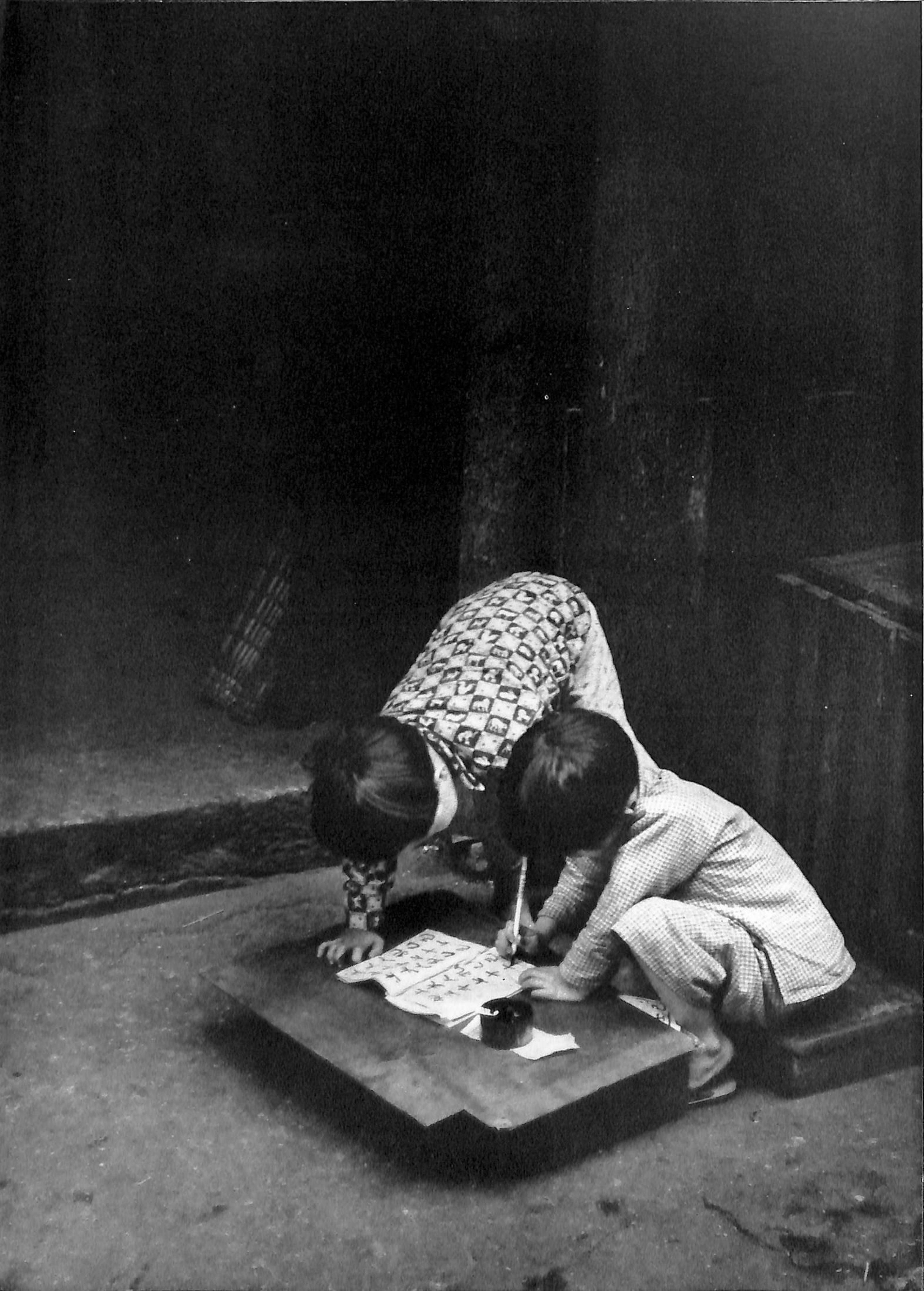
one-man show *(contd.)*

Balinese family. 50mm Summicron.

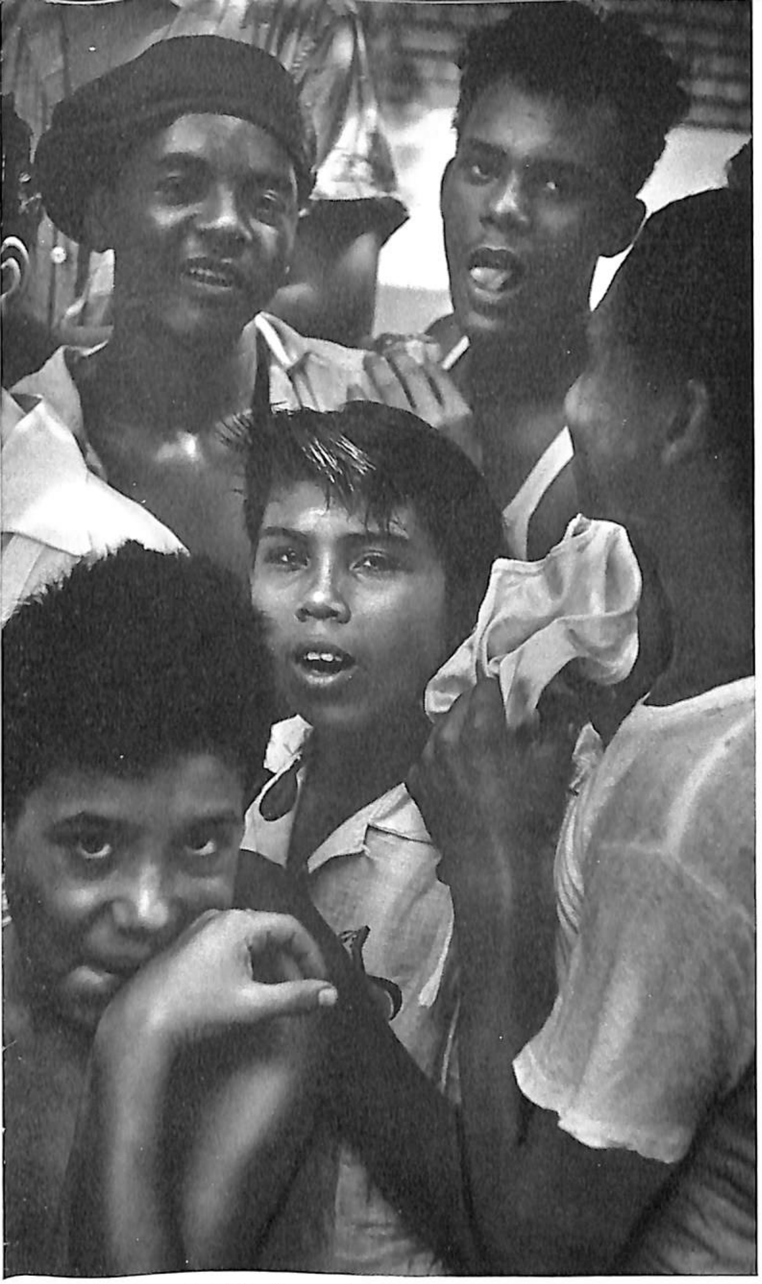


Balinese dance masks. 50mm Summicron.





Chinese children practice writing. 35mm Summaron.



East side boys in Manhattan. 35mm Summaron.

Japanese children just as rain stops. 35mm Summaron f/3.5.

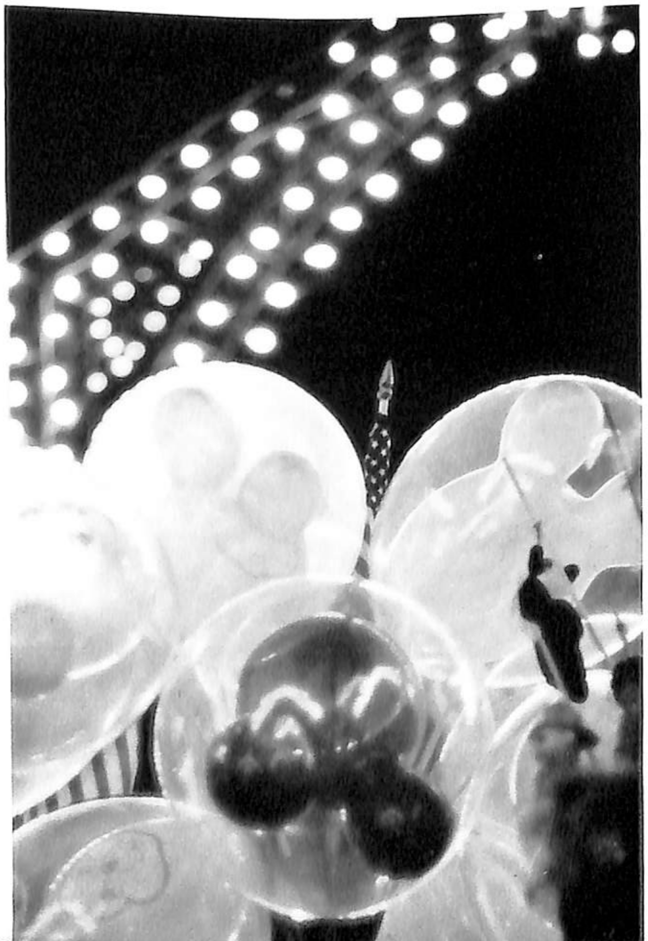
report on High Speed Ektachrome / *Norman Rothschild*

fastest color film introduced

Last June Kodak released the fastest color film yet to reach the general market—High Speed Ektachrome. Like other fast color films, it can help you to get sharp, fully exposed and really beautiful color transparencies in everything from brilliant sunlight to lighting conditions which were once impossible for good color. Both Daylight and Tungsten emulsions (Type B, balanced for 3200°K.) are available.

The official Exposure Index for High Speed Ektachrome Daylight Type is 160. For the Type B film it is 125. Both speeds pertain to meters calibrated for the ASA system. Tests by myself, plus the findings of many 35mm users I have talked with, show that the speed claims for High Speed Ektachrome are in no way inflated. In fact you can expose these films safely at Exposure Indexes of 320 and 250 respectively, yet get good color, by a very simple change in the processing procedure. But more about this later!

BALLOONS: Striking photo taken with High Speed Ektachrome Type B shows colorful night scene realistically; f/2.8 at 1/10 second.



Norman Rothschild

Kodachrome times 16

You can see what this high speed really means when you realize that this film is 16 times as fast as Kodachrome in the Daylight Type and the Type B is about 8 times as fast as Kodachrome Professional Type A.

Situations calling for 1/30 second with Kodachrome exposure need only 1/500 second with the new film. This leaves far less chance for camera shake. And it increases the opportunities for hand held telephoto pictures in color. Or, suppose depth of field is the most important consideration—as it often is in close-up work. A shutter speed requiring f/5.6 with Kodachrome could be handled at f/22 by High Speed Ektachrome, for example.

Some examples of uses for this speed are in sports photography and in closeups. Even though these may seem poles apart as photo problems, they have a common denominator—the need for great depth of field coupled with adequately high shutter speed. In the case of sports it's a matter of keeping a rapidly moving player in focus, yet using a shutter speed high enough to stop motion. In closeup work there is often danger that subjects will move in the wind, or that blur will take place from equipment vibrations. And at close range, at high image magnification, the depth of field is small.

long on latitude

Both the Daylight and Type B emulsions have latitude, or ability to absorb exposure errors. This means that, according to our tests, you will get good color even though you under- or overexpose by as much as one stop. Even 1½ stops over or under will still give you acceptable color without extended development. Correctly exposed transparencies show an amazing wealth of detail in both highlight and shadow areas.

there being less of a tendency with this film for highlights to wash out and shadows to block up than there is with slower films.

what about grain?

All this talk about speed leads to a discussion of grain and resolution. Naturally, a superfast film like High Speed Ektachrome doesn't have as fine grain or as good resolving power as Kodachrome. But when compared to regular Ektachrome, which is only about ⅓ as fast as the new film, the remarkable results of Kodak's latest emulsion technology become startlingly apparent! Examined under an 8X magnifier both regular and high speed films showed a very similar grain structure. All in all it's my feeling that the new film is somewhat finer-grained and has resolution equal to, if not better than that of regular Ektachrome. Tests show that really sharp 8x10 or even 11x14 color prints are possible from good Leica transparencies made on High Speed Ektachrome.

But enough of speed, latitude, grain and resolution. Let's talk about the beautiful color you'll get with the new film. High Speed Ektachrome's color lacks the postcard-like effect commonly associated with much of today's color photography. Soft pastels are reproduced nicely, as well as the brilliant, saturated colors.

Norman Rothschild

RESTAURANT INTERIOR. Casual, existing-light pictures in full color with good depth of field are possible with the high speed color film. Daylight type in mixed light, f/4 at 1/10 second.

And how do individual colors reproduce in the film as compared with other color films? Blue skies are rendered softer than with Kodachrome and less greenish than with regular Ektachrome. Yellows are excellent, have little tendency to go orange, even on underexposure. Reds too are less orangey, while greens are well differentiated and don't go muddy on slight underexposure. Neutrals are rendered extremely well. Whites are clean, grays are pretty close to neutral and there is more freedom from brownish, greenish or bluish casts in shadow areas.

Bob Schwalberg

CIRCUS. Catching fast action in full color is greatly simplified with new film. This photo was taken on Type B with 50mm Summilux f/1.4 lens; f/1.4 at 1/250 second.

correction filters

When the Daylight Type film is exposed by electronic flash, no filter is recommended by Kodak. The Type B film produced excellent color when exposed to 3200°K. lamps without a filter. Used with 3400°K. photofloods and no filter the new film gave results that were a bit too blue. Here, a Leitz Flash Filter will be found helpful in getting warmer results. This filter will also give good results when Type B High Speed Ektachrome is exposed by the light of clear wire-filled flashbulbs.

In daylight, Kodak recommends an 85B filter for

TULIPS. The new high speed color film has less tendency to wash out in the highlights or lose detail in the shadow than slower films. Daylight type; f/16 at 1/100 second.

Norman Rothschild

FILTER CHART FOR HIGH SPEED EKTACHROME

LIGHT SOURCE	DAYLIGHT TYPE EXPOSURE INDEX	FILTER	TYPE B EXPOSURE INDEX	FILTER
Daylight	160	NONE	80*	85B
Electronic Flash	160[1]	NONE[2]	80*[1]	85B
Blue Flash	160[1]	NONE	N.R.[3]	N.R.[3]
Clear wire filled flash	160[4]	80C	125[1]	81C[5]
3400°K. photoflood	50	80B[6] or Leitz photoflood	100	81A
3200°K. lamps	40[6]	80B & 82A[6] or Leitz photoflood	125	NONE
Household tungsten lamps	N.R.[3]	N.R.[3]	80 to 100[6]	82A to 82D[6]

*An E.I. of 100 gave somewhat more saturated results.

[1] For calculation of exposure by the Guide Number method.

[2] 81C or Leitz Flash filter gives warmer, more pleasing results for some electronic flash units.

[3] N.R.—not recommended.

[4] For calculation of exposure by the Guide Number method, using same figures as for corresponding blue flashbulb (i.e., M5 bulb + 80C filter = M5B bulb).

[5] Personal tests indicate 81D filter gives somewhat warmer, more pleasing tones.

[6] Not a Kodak recommendation. Based on personal tests, and suggested for trial only.

good results with Type B film. In general the results I saw were somewhat warmer and softer than when Daylight film is employed without a filter.

An interesting thing about High Speed Ektachrome Type B is the fact that it is the first Tungsten film for which Kodak gives recommendations for electronic flash exposures. An 85B filter should be slipped on the lens when using the Type B film with electronic flash.

The Daylight Type film gave good results under bluish daylight fluorescent tubes and, of course, all situations involving daylight illumination. Results under cool white fluorescent tubes were a bit warm, while results from warm white lamps were acceptable but a bit too yellowish for my taste.

Type B film gave excellent results using warm fluorescents. Cool white gave results slightly on the cold side. Daylight fluorescents gave results far too blue, indicating the use of Daylight Type film for better results. When exposed by the light of household tungsten lamps the results were rather warm but not unpleasant. Daylight film with ordinary household lamp bulbs gave results which were far too reddish to be acceptable.

doubling the index

Earlier in this article we mentioned that extra speed could be obtained by modifying the film processing. To gain one stop of speed, shooting daylight film at 320 and Type B at 250, the time in the first developer is changed to 13 minutes instead of 10 minutes. High Speed Ektachrome used this way will have somewhat more contrast and a lowering in density of the deepest blacks. There will also be a shift in color rendition towards the greenish. But this is normally not serious and is most noticeable in pastel colors. Generally speaking color rendition with a one-stop push is reasonably close to normal and quite pleasing. A one-stop gain, it should be noted, is all that is recommended by Kodak. It is interesting that pushing can be done by increasing only the time in the first developer—and by only three minutes, at that. No extra color development is needed. With even longer immersion times in the first developer, the new film can be exposed at even higher indexes. The upper practical limit, before color quality deteriorates really badly, is an index of 640 for the Daylight Type film and 500 for Type B. At these ratings the color is only "acceptable," the rendition being quite greenish, the maximum density quite low and very green and the grain pattern rather coarse. Reserve this procedure for emergencies or experimentation only!

It should be noted that when *any* color film is exposed and processed for higher than normal indexes, exposure latitude decreases, and makes exposure more critical than when the film is exposed and processed normally. Forced processing also tends to exaggerate minor differences in color rendition which exist in different emulsion batches of the same film. When making tests to determine color rendition under forced development, make sure pictures shot on assignment are made on the same emulsion batch if you want similar results. Also make sure films are processed by the same finisher. If you do your own processing, use freshly prepared solutions for each session if getting duplicable results is an important factor. Cold, dry storage of color film, at temperatures of 40-55°F. is also recommended.

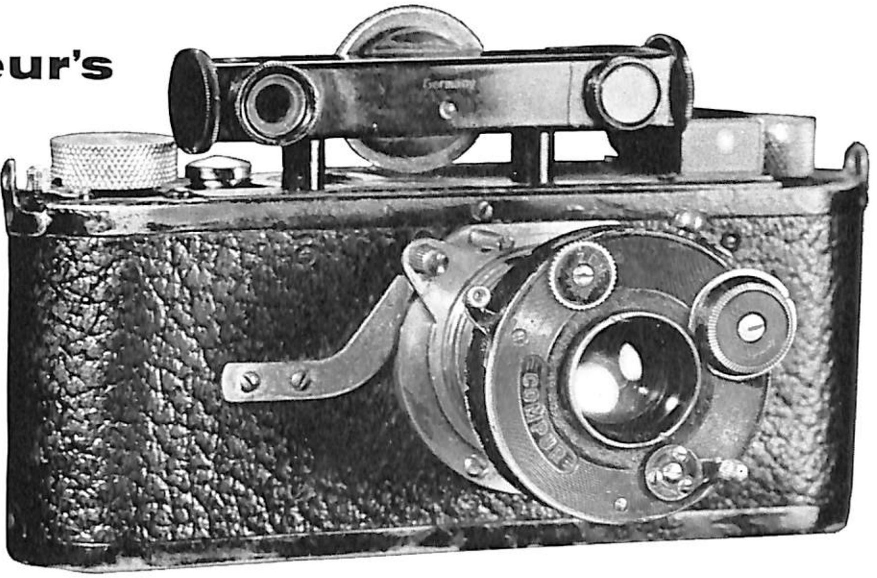
High Speed Ektachrome is available in 20-exposure cartridges only at a price of $2.50 each.

PROCESSING CHART FOR HIGH SPEED EKTACHROME

DAYLIGHT TYPE EXPOSURE INDEX	TYPE B EXPOSURE INDEX	MINUTES IN FIRST DEVELOPER	MINUTES IN COLOR DEVELOPER
160	125	10†	15†
320	250	13†	15†
500	375	17-18	15
640	500	20	15

†These times are the only ones shown here which are recommended by Kodak.

connoisseur's corner...



Here is the first of a number of brief articles about former items of Leica equipment. In its long history, the Leica System has featured many unique accessories. Photographers often collect former Leica cameras and accessories as a hobby within another hobby. And many who do not collect actual equipment, nonetheless study and collect lore and information about it. Even the non-aficionado will find fascination in the ingenious components of Leica history. Text and facts are from Leitz representative Al Novick, who owns an outstanding collection of Leicunabula.

the Model B

AN ALMOST-LEGENDARY LEICA

Oskar Barnack, designer of the Leica, made the first Leitz camera more than 45 years ago as a sort of exposure meter for his movie camera. Correct exposure was hard to determine in advance, and spoiling several hundred feet of motion picture film was costly in both time and money.

So Barnack designed and made a still camera which accepted six feet of movie film and had a fixed shutter speed. It did its exposure-checking job well, and also proved to be an excellent still camera which Leitz decided to manufacture. But World War I delayed its introduction to the public. These years were a period of experimentation and development of the original camera. When the first few Leicas left the factory in 1924 they were the design later to be known in the U.S. as the Model A. They had a range of shutter speeds, focal plane shutters coupled to a film advance mechanism and non-interchangeable lenses. A new era of photographic history had begun.

Leitz' customers were shown the camera. They were mostly scientists, for the company had previously made only microscopes and scientific equipment. Many of them bought Leicas and were enthusiastic about them. And some of the scientists using the new camera asked if they could get one with an interlens shutter.

And so, at the same time that they were producing the original Model A, Leitz made up a small number of Leicas with Compur rather than focal plane shutters. These were the cameras now known in this country as the Model B.

The Model B (not to be confused with the later IIIb) was made in small quantities until 1930. It was similar to the Model A, except that it had a Compur interlens shutter rather than a focal-plane shutter which the Model A and all other Leicas feature. Some versions of the Model B had dial-set shutters while others had a rim-set type. The lens was the 50mm Elmar f/3.5, and shutter speeds were from 1 second to 1/300 second, "Time" and "Bulb." The exposure counter was located where the shutter speed dial would normally be. And what would normally be the shutter release button became a sprocket release to permit winding the film to the next exposure.

But it was the focal plane shutter, featured on the Model A which proved its superiority for general-purpose photography. It made practical the many interchangeable lenses of the Leica and set the design pace for all the top-quality 35mm cameras which have followed the Leica lead.

The Model B became a part of Leica history, but not of the Leica system—a curiosity for the collector and connoisseur. *Al Novick*

an introduction to enlarging / *Joseph Foldes*

discover the other half of photo fun

This article, although a major one, is a very compact treatment of an important, creative area of photography. It can start you on the road to making black-and-white enlargements and teach you principles which will apply to color print making as well.

Naturally, once you know the rudiments, the best way to learn the subtleties of print-making is to watch an expert at work. You can also get a more complete picture of the art in Joseph Foldes' "The Practical Way to Perfect Enlargements" (Camera Craft Publishing Co., San Francisco, Calif. $5.00)...Ed.

Making enlargements offers as much chance for creativity as the taking of the original photograph. Of course, top-notch prints call for much skill and practice, but you will be surprised when you find out how easily you can learn to make good enlargements. It won't take more than an hour or so before you're producing acceptable prints. In a few weeks you will be able to turn out fine enlargements which give the effects you want in your pictures.

Fig. 1. SHARP NEGATIVE, a proper start toward a good print.

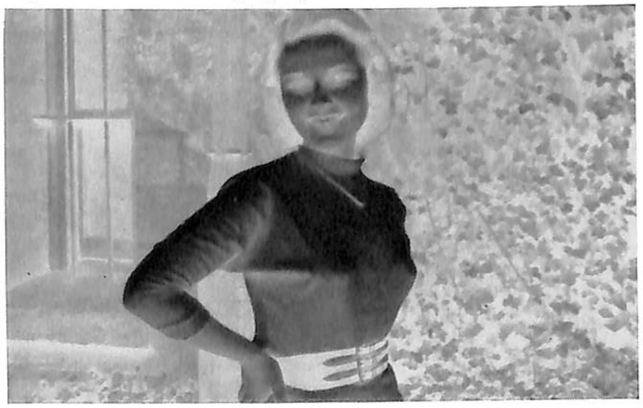
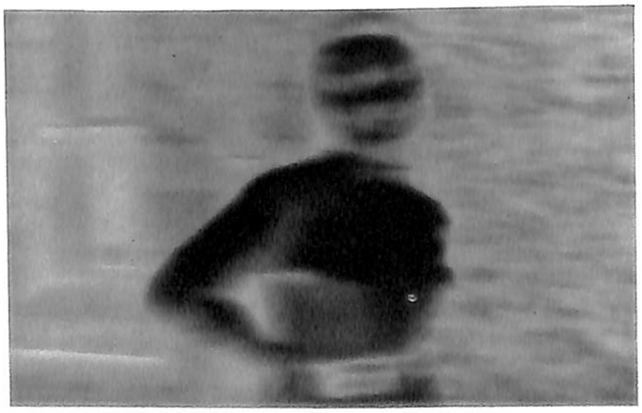


Fig. 2. UNSHARP NEGATIVE, caused by camera motion.



the negative

Enlarging a negative magnifies its flaws as well as its features. A slight lack of sharpness that would be unnoticed in a 35mm contact print may become intolerable in an 8 x 10 enlarged print. The sharper your negatives, the better they are for enlarging. Aside from sharpness, the two most important negative characteristics which determine print quality are density and contrast.

density

The photographic image is composed of literally billions of tiny grains of metallic silver suspended within the emulsion. The greater the amount of silver deposits, the denser the negative, and less light passes through it to the enlarger paper. A negative with smaller silver deposits is said to be thinner, and such a negative will permit more light to pass through it to the paper. The greater the amount of light passing through the negative, of course, the darker the print and vice-versa.

Unfortunately, there is no rule to tell you what proper negative density is, but because excessive density increases graininess and decreases gradation and sharpness, we can safely say that the best negative is the thinnest one from which a good quality print can be made. The thinnest parts of the negative should still be dense enough to show detail where desired in the print, and the densest parts should still be thin enough so that you can just about see through these areas when the negative is held in front of a well-illuminated sheet of white paper (*not* when held in front of a light source).

contrast

Contrast refers to the ratio existing between the thinnest and the densest parts of the negative. Contrasty negatives exhibit a considerable degree of difference between these highlight and shadow areas. In an extremely flat negative there is relatively little difference in density between these areas.

Negative contrast is determined by four basic factors. First of these is the film itself, slower films tending in general to be inherently more contrasty materials. Subject conditions, the direction and type

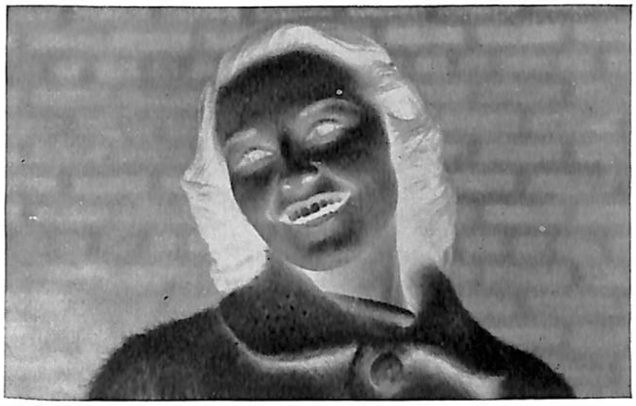


Fig. 3. CORRECT FOCUSING of the camera results in this negative, with subject sharp, and background not sharp.

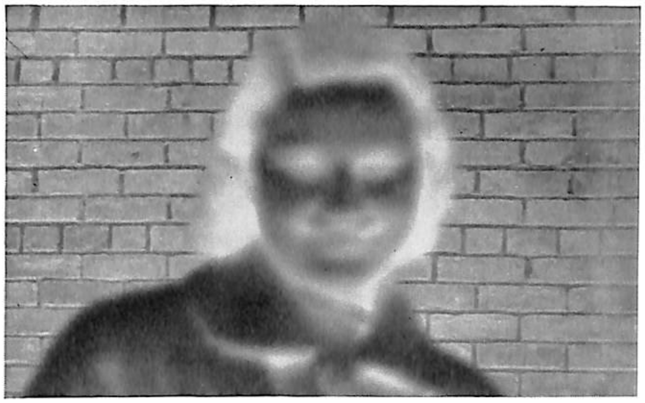


Fig. 4. INACCURATE FOCUSING makes subject unsharp and background uselessly sharp; a good print is impossible.

of lighting as well as the various tonal areas in the scene also help determine eventual negative contrast. But the third and fourth factors are most important of all. They are the exposure and development given. By development, incidentally, we are referring not only to the amount of time the film is developed, but the nature of the developer itself, some formulas being considerably more or less contrasty than others.

The relationship between exposure and development which determines negative contrast is rather easy to state. The more we expose and/or the less we develop the lower will be our eventual negative contrast. The less we expose and/or the more we develop the contrastier will our negative be.

Development is almost always the best means of controlling contrast. While the recommended developing times given by the various manufacturers are usually satisfactory, contrast may readily be manipulated by slightly increasing or decreasing the developing time.

graininess

Of great importance to Leica users is the matter of negative graininess. As we stated earlier the density in your negative is caused by the depositing of countless little grains of metallic silver. The more of these there are the more they tend to clump together, actually moving into tight clusters or grain-clumps. The spaces from which meandering silver particles

DENSITY OF NEGATIVES: a too-thin negative *(Fig. 5)*; negative density about correct *(Fig. 6)*; negative dense but passable *(Fig. 7)*; negative too dense *(Fig. 8)*.

Fig. 5

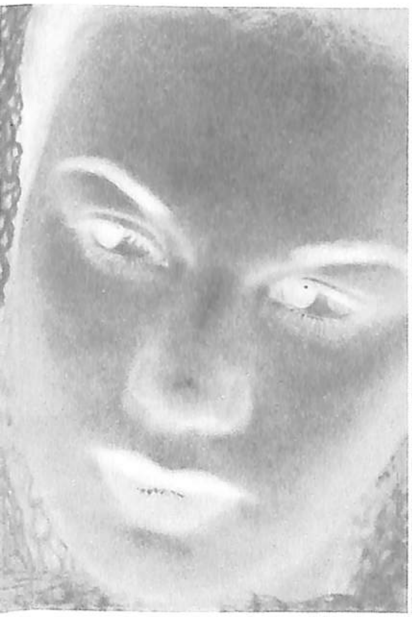


Fig. 6

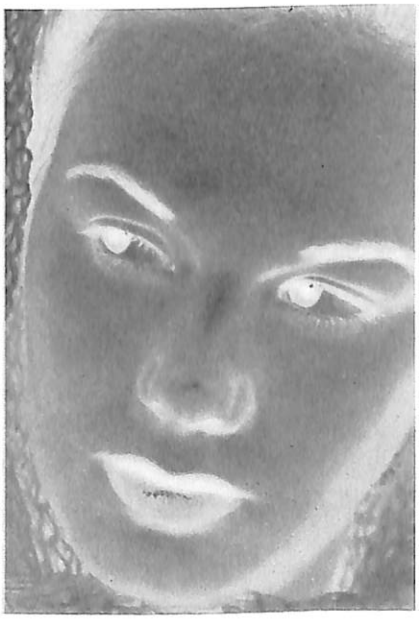


Fig. 7

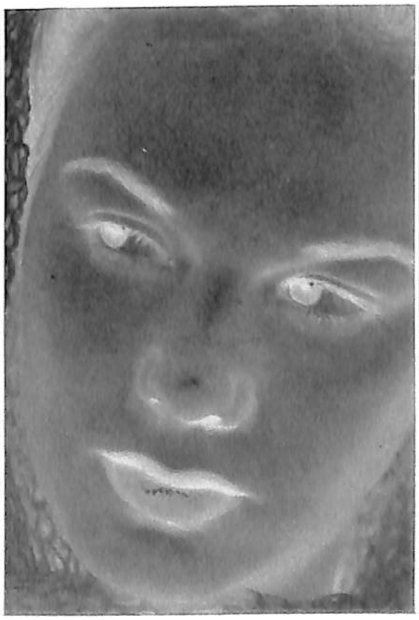
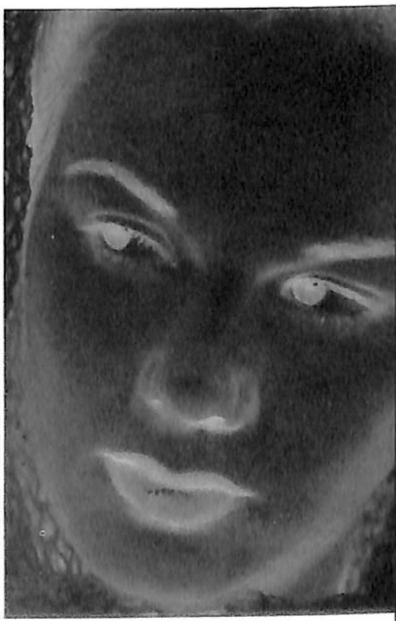


Fig. 8



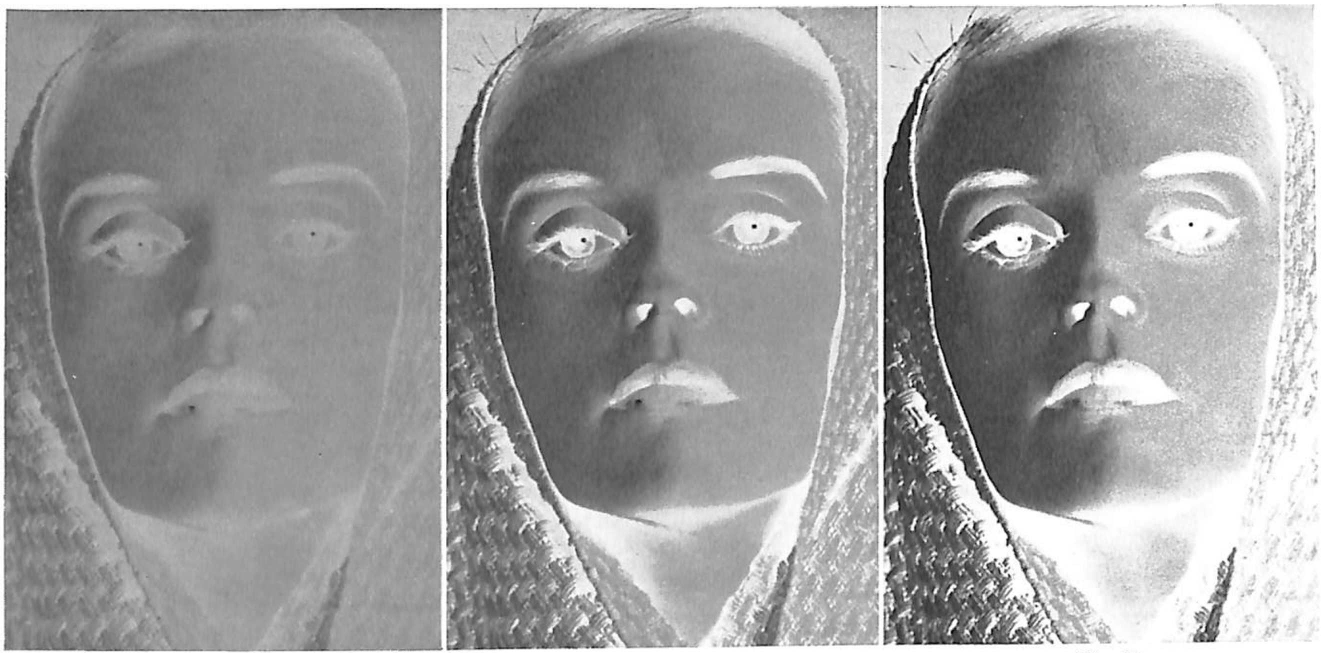
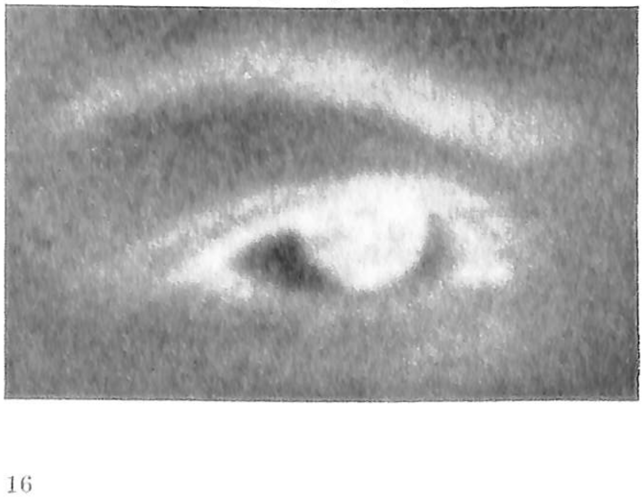


Fig. 9 *Fig. 10* *Fig. 11*

CONTRAST IN NEGATIVES. Figure 9, a flat negative; Figure 10, average contrast; Figure 11, excessive contrast.

have moved form tiny areas of low density. When we enlarge such a negative, these more translucent empty spaces form a salt-and-pepper effect in which they show up as dark specks against lighter backgrounds. This is grain. You can't ever completely eliminate some amount of grain, but here are three rules that will help you keep it to a bare minimum: 1) Don't use a film that is any faster than you need it to be. The slower materials, particularly the thin emulsion films, are remarkably fine grained. 2) Keep your exposures down to the minimum you need to obtain adequate shadow area density. More than this amount of exposure produces useless density, and the more density, the more grain. 3) Avoid overdevelopment. This not only produces excessive density but increases contrast so that the apparent graininess of the print is even more exaggerated.

Fig. 12. GRAINY NEGATIVE, greatly enlarged section.



setting up for work

A permanent darkroom is a convenience, but not a necessity. Hang a blanket over a kitchen or bathroom window at night and you can convert either room into a temporary but satisfactory working place. All you need is the enlarger, a timer, and the enlarging paper in a dry setup *(Fig. 14)*, while in a separate wet setup you have your trays of chemicals. Use the chemicals, processing method and safelight recommended in the instructions packed with the enlarging paper.

Before you start to work make a fog-test. Place a piece of enlarging paper next to your enlarger, another piece next to the developing tray. Place a coin on each and leave them there for five minutes, then develop the test strips for three minutes. If the spots where the coins sat show a white circle and the rest of the paper is gray—even a very light gray—then your darkroom is not safe. *(See Fig. 15)* Either light is coming in from the outside, or your safelight has too large a bulb in it, or it is too close to the working area. Start to make enlargements only after a new coin test proves your darkroom to be safe.

Pick a negative with normal contrast from which to begin making prints. Remove dust from both sides of it by gently blowing on it and brushing it with a wide camel's hair brush. Also clean the condenser

THE MOST REMARKABLE OPTICS YET CRAFTED BY MAN

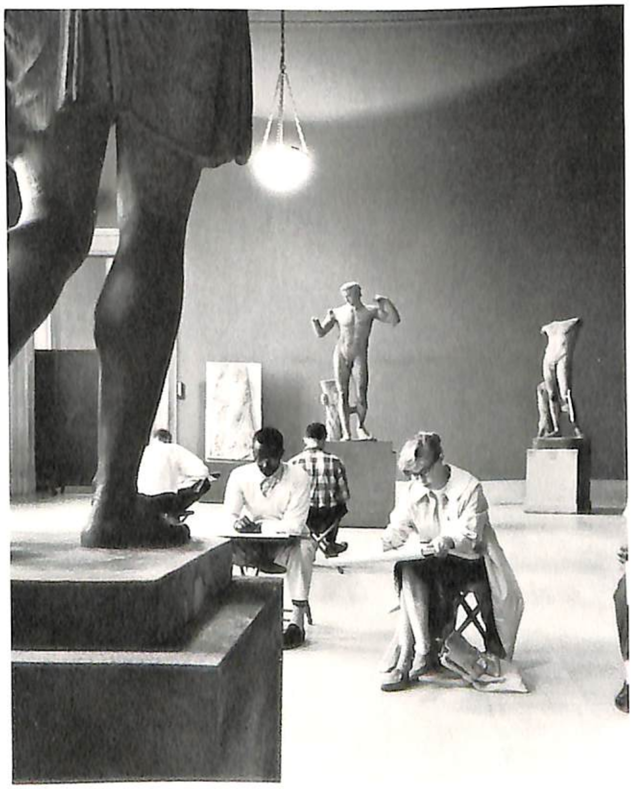
SUMMICRON f/2 LENSES

COMBINE HIGH SPEED WITH GAINS IN IMAGE QUALITY

You can now make sharper pictures, and in virtually every picture situation. Summicron f/2 lenses—in 35mm, 50mm and 90mm focal lengths—deliver gains in image quality at *all* apertures, at *all* camera-to-subject distances, and over *every* millimeter of the 35mm frame!

Summicron f/2 optical characteristics approach theoretical ideals. Their in-use advantages are very real, and readily apparent. Over-all performance surpasses not only the high-speed lenses, but of even more significance, the "slower" lenses long revered for superior image quality.

At full aperture a Summicron f/2 delivers quality advantages you can see—over the entire 35mm frame—from any camera-to-subject distance.



At any aperture a Summicron f/2 delivers more resolution, image contrast and freedom from distortion than any lens of comparable focal length.

(Advertisement)

THE MORE YOU EXPECT FROM A LENS, THE GREATER WILL BE YOUR APPRECIATION OF THE SUMMICRON f/2's

f/2 setting commands confidence

There has always been a justifiable hesitancy to use any lens wide open, for maximum aperture is never optimum aperture. Yet a Summicron at f/2 delivers resolution, corner-to-corner sharpness and image contrast that command confidence. And with a Summicron, you enjoy this wide-open performance throughout the focusing range—from infinity to closest working distances.

optimum aperture clicks in at f/4

Exciting as the wide-open performance is, the advantages of Summicron image quality over other lenses are even more dramatic at smaller apertures. The Summicron, at f/4, reaches a level of resolution, image contrast and freedom from aberrations never before approached in camera optics. The Summicron hits a higher optimum—reaches it faster—and holds it longer. At any aperture smaller than f/4, all you gain is depth of field. And unlike other high-speed lenses, when the picture situation calls for f/11 or f/16, a Summicron continues to deliver with no shift in focus, no loss in picture quality.

superior image quality at all distances

All Summicron focal lengths deliver superior image quality from infinity down to closest camera-to-subject distances. This is due to the basic formula, the integrity with which it is manufactured, and to the matched mounts and "custom" rangefinder cams adapted to each assembled Summicron, to assure precise rangefinder focus—on *every* Leica camera ever manufactured.

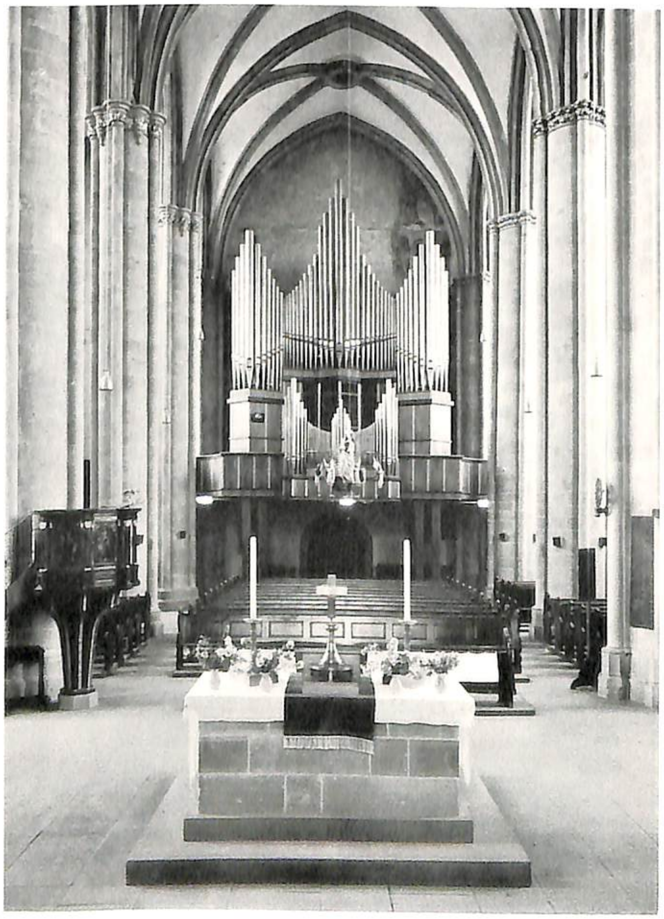
soft-coated internal elements

All internal elements in Summicron lenses are *soft* coated for greater efficiency. A single uncoated surface of a single element reflects 4 to 7% of the light that hits it. Hard coating reduces that figure to 2%—a notable improvement. Soft coating further reduces internal reflections to 1.2%! Soft coating costs more, is more critical to apply—and more efficient. External front and rear elements are hard coated for maximum durability.

optics with mechanical advantages

No detail has been spared in Summicron lenses to help you make better pictures. You sense this from the moment you first work with a Summicron, the ease with which it handles on the camera, the smooth working focus drive, the linear diaphragm settings (equal spacing between all apertures) —even the raised dot index which lets you change lenses in complete darkness. You see the quality in the finish of the lens, in the finely etched numerals and depth-of-field scale, in the click-stops (half-stops on the 90mm). All three Summicron f/2 focal lengths employ *parallel* focusing mounts for added accuracy. In addition to increasing reliability and focusing ease (even in temperature extremes), parallel mounts are more convenient when setting or reading distance and aperture scales.

The 35mm Summicron f/2 is eminently suited to architectural photography, such as this church interior which makes full use of the lens' wide angle of view and added depth of field. The 35mm Summicron is also invaluable in close quarters, for landscapes, and for fast off-the-cuff candid pictures.



Summicron lenses in use

With a maximum aperture of f/2, you can naturally take more "existing light" photographs with high speed black-and-white and color films. Equally important, with f/2 aperture you gain wider use of the high-resolution, fine-grain emulsions–to retain image quality even in poor light conditions. You work with confidence in the knowledge that Summicron image quality is consistent–at all distances –at any aperture–over the entire 35mm frame. And with the Dual-Range 50mm Summicron, you can move in on any subject to a penetrating 19″ and get Summicron-sharp close-ups (with range-finder focus and automatic parallax compensation). What's more, this provision is always with you and your Leica.

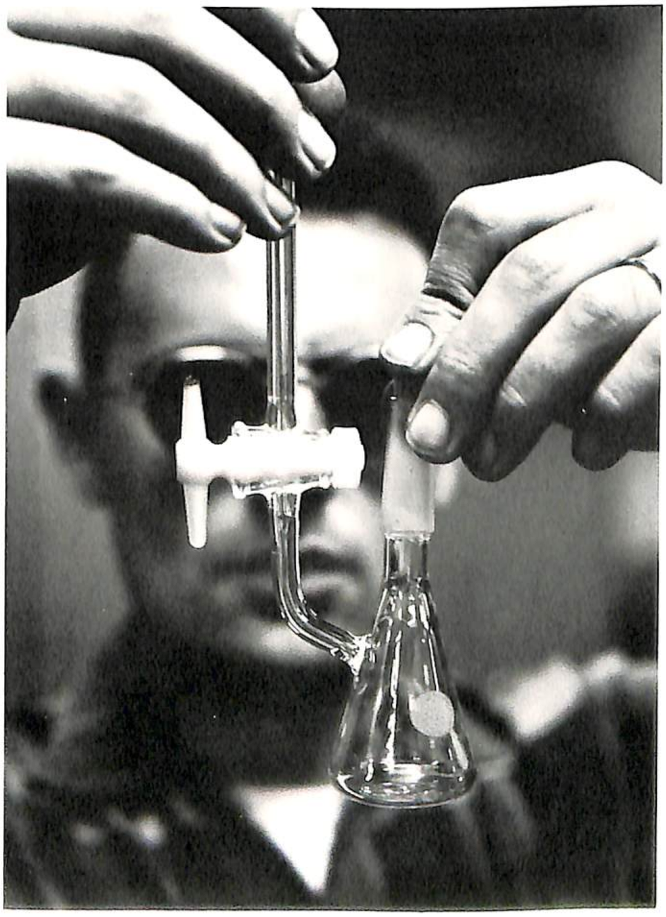
the Summicron Team

Summicron image quality has given rise to a new outfit being used by more and more Leica owners. They call it the Summicron Team: the 3 most often-used focal lengths, all with top optical performance and matched apertures from f/2 to f/16. With "the Team," you can interplay the 64° coverage of a wide angle, the 45° coverage of the 50mm and the selective 27° coverage of the long focus to any subject matter.

did you know these Summicron facts?

Leitz Summicron lenses employ the latest rare earth Lanthanum optical glasses with higher refractive indexes (greater light-bending power) lower dispersion (higher color fidelity) and high ultra-violet absorption • Summicron lenses are neither "warm" nor "cold" in their color rendition. They do not filter out any of the visible spectrum by intent or by accident • The 50mm and 90mm "lens heads" can be separated from their focusing mounts, for dual use on Leitz enlargers, copying and repro accessories • A share of the credit for Summicron performance must go to the modified-Gauss formula which uses critically computed internal air-spaces to do the work of additional lens elements.

The 50mm Dual-Range Summicron f/2 is probably the most desirable "normal" lens in photography. In addition to high image quality and high speed, its Dual-Range feature lets you add the drama of candid close-ups–as near as 19″–with range-finder focus and automatic parallax compensation.



The 90mm Summicron f/2 with its high speed, adds new versatility to the already versatile 90mm focal length. It is ideal for head-and-shoulder portraits, such as this existing light study, as well as in stage and sports photography, candids from afar and photo-reportage.

THE LEITZ LENS HERITAGE

UNCOMPROMISED IMAGE QUALITY

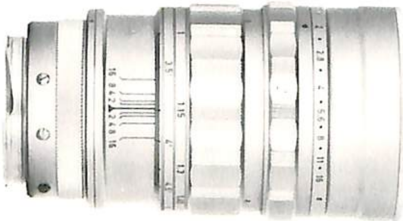
It is no coincidence that these new Summicron f/2 lenses were developed by Ernst Leitz. For they are but the latest in a series of lens developments in which the guiding rule has been *uncompromised image quality*. The lens designer has at his disposal an infinite combination of variables—more than 300 different types of optical glass—in any variety of thicknesses and curvatures. He can work with any number of elements and many differences in air spacing. In short, from the combinations and permutations, there must come order, and optical quality. And there must be facilities for converting that masterly design into a lens to take pictures—and into thousands of lenses for thousands of cameras. Any break in the link, from design to end use, and all other steps are wasted. That the results are so consistently noteworthy with Leitz lenses is due to a rare level of optical experience—with microscopes, lenses and cameras—and a traditional devotion to quality that has been nurtured for over 110 years. This is the Leitz Lens Heritage, and these are the lenses that benefit from it:

21mm Super Angulon f/4
28mm Summaron f/5.6
35mm Summicron f/2
35mm Summaron f/2.8
35mm Summaron f/3.5
50mm Summilux f/1.4
50mm Summicron f/2
50mm Elmar f/2.8
50mm Elmar f/3.5
65mm Elmar f/3.5
85mm Summarex f/1.5
90mm Summicron f/2
90mm Elmarit f/2.8
90mm Elmar f/4
125mm Hektor f/2.5
135mm Hektor f/4.5
200mm Telyt f/4.5
400mm Telyt f/5

50mm SUMMICRON f/2 The 50mm focal length is the traditional "normal" lens for 35mm cameras. Its 45° angle of view and favorable depth-of-field are two reasons why most photographers use the 50mm for most of their pictures. The Dual-Range Summicron—with focus and automatic parallax compensation to 19"—is probably the most useful 50mm focal length in photography. The 7-element 50mm Summicron is available in rigid bayonet mount for Leica M-Series cameras, or in collapsible thread mount at $129; and in the Dual-Range model for M-Series Leicas at $168.

35mm SUMMICRON f/2 The 35mm focal length with a wider angle of view (64°) is used for relating the subject to its background, for covering a large picture area from close quarters. It is indispensable to the photo journalists, who use its added depth-of-field for zone focusing, when the assignment calls for fast, off-the-cuff shooting. The 35mm Summicron f/2 is free of distortion; features oversize front and rear elements for peak performance at full aperture; and includes a convenient finger-tip focusing lever. The 8-element lens focuses to 2'4" and is available in bayonet mount for the Leica M-2 or in thread mount at $174; in bayonet mount for Leica M-3, with RF Attachment—that couples the rangefinder and viewfinder to the 35mm focal length—$207.

90mm SUMMICRON f/2 The 90mm long-focus lens provides 1.8x magnification compared to the 50mm focal length. It is most useful for head-and-shoulder portraits, candids from afar, news, theater and sports photography. The 90mm Summicron f/2 features a lightweight mount for steady, hand-held shooting (even at slow speeds); a built-in telescoping lens hood; click stops and half stops. The 6-element lens is available in bayonet or thread mount (rangefinder coupled) at $199.50; also available in short mount for use on the Visoflex II at $192.00. A short focusing mount is available for the rangefinder model permitting dual-use on your Leica and with the Visoflex II.



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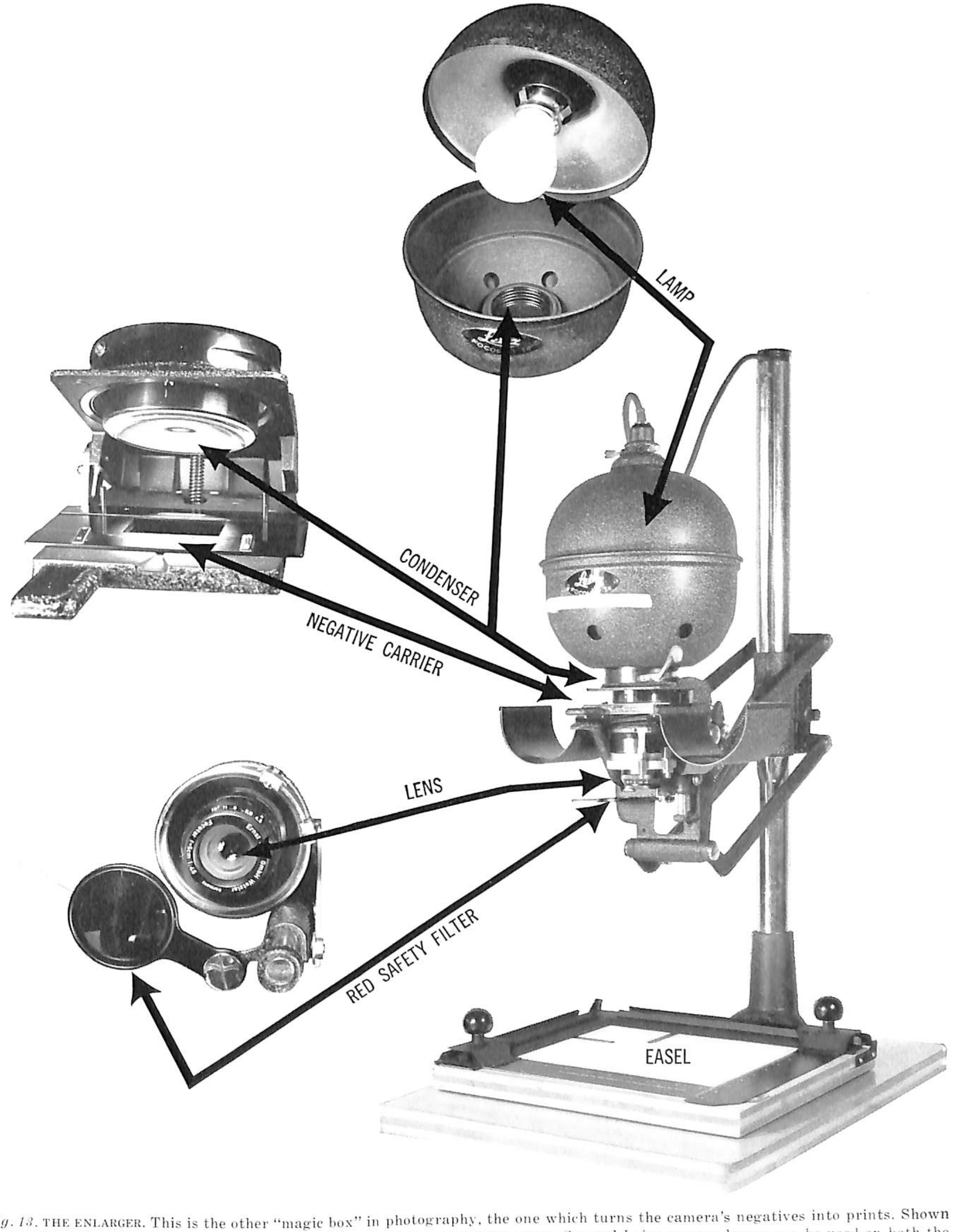


Fig. 13. THE ENLARGER. This is the other "magic box" in photography, the one which turns the camera's negatives into prints. Shown here is the Leitz Focomat IC, an autofocus enlarger and its component parts. Several Leica camera lenses can be used on both the Focomat and the Valoy II *(see back cover)*. The light source, usually an incandescent bulb, is collected by a condenser and sent through the lens, which projects an image which can be focused onto enlarger paper in the easel. The red safety filter is swung over the lens to permit composing the picture without fogging the paper in the easel.

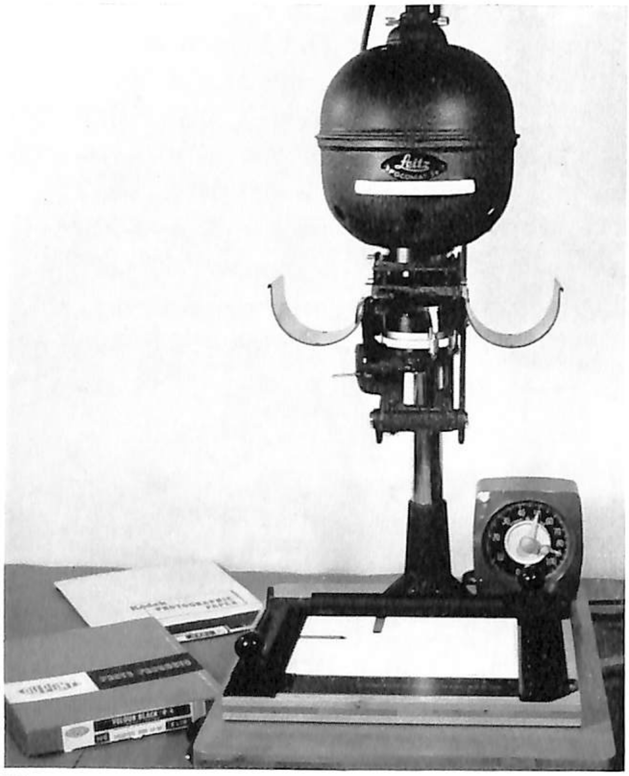
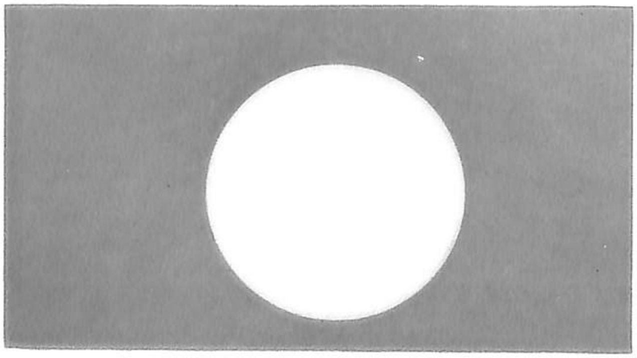


Fig. 14. SETTING UP FOR WORK. Enlarger, timer, and print paper.

and the lens of the enlarger from time to time.

Put the negative into its carrier and turn on the light in the enlarger. Adjust the size of the projected image by moving the enlarger head up and down. The higher the enlarger head is raised the larger will be the projected image (*Fig. 17*). The picture is brought into sharp focus by moving the lens up and down with the focusing mechanism. Autofocus enlargers like the Leitz Focomats Ic and IIc maintain sharpness automatically. By moving the easel on the baseboard of the enlarger you can select any part of the projected image for making the print.

Fig. 15. COIN TEST result indicating unsafe darkroom.



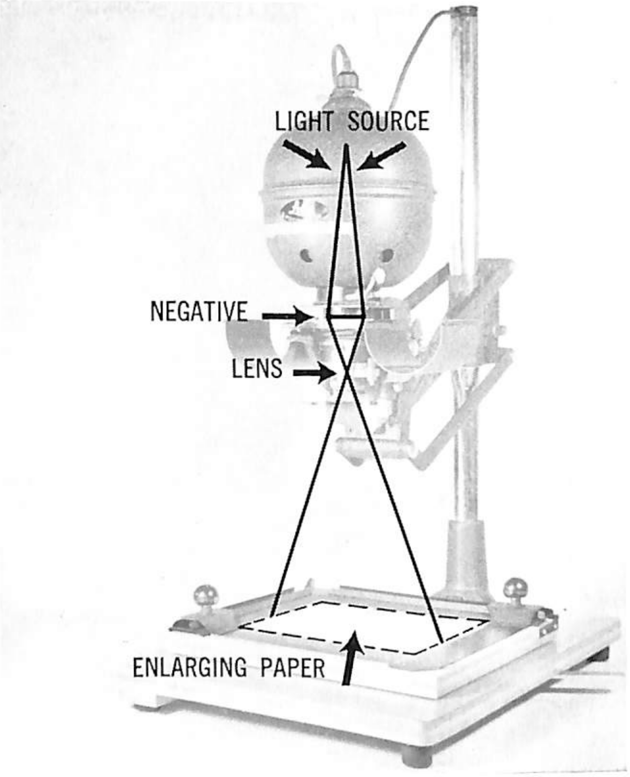
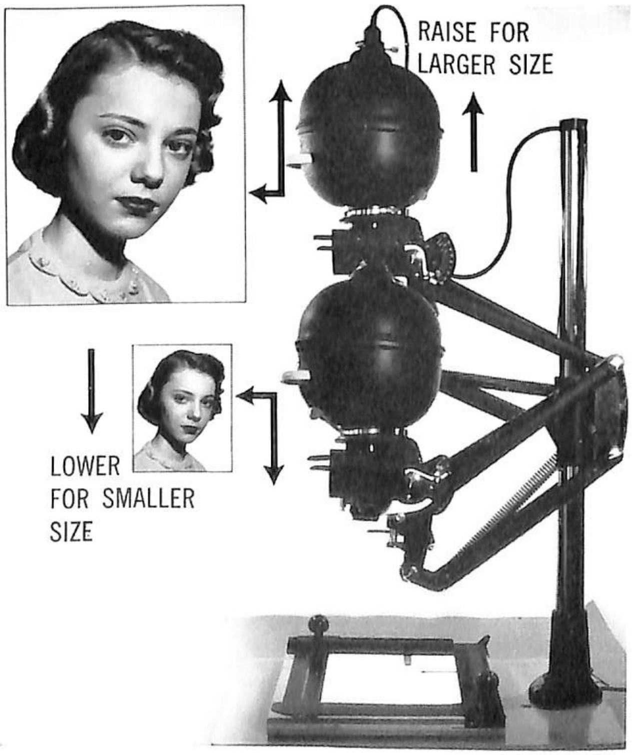
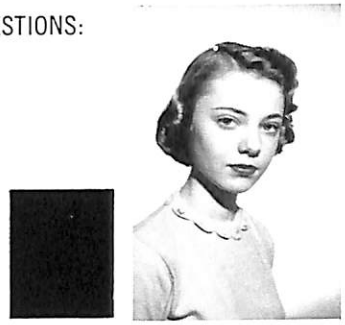


Fig. 16. PATH OF LIGHT which produces pictures.

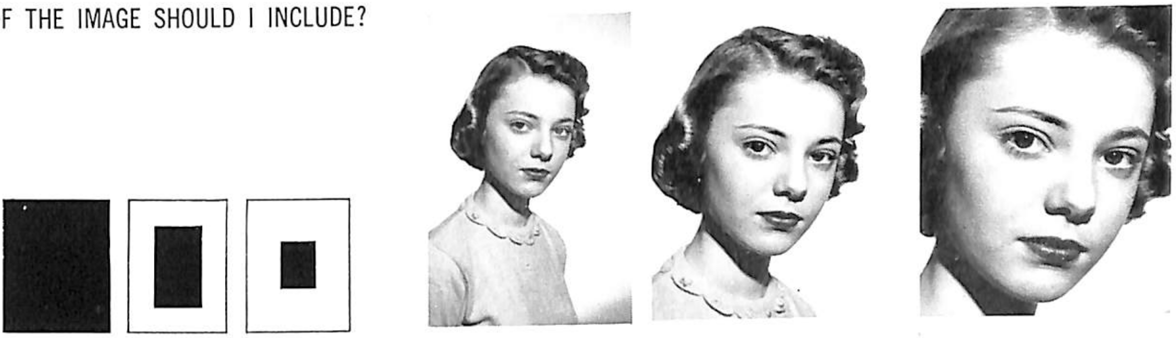
Fig. 17. FOCOMAT SWINGS EASILY, locks in position.



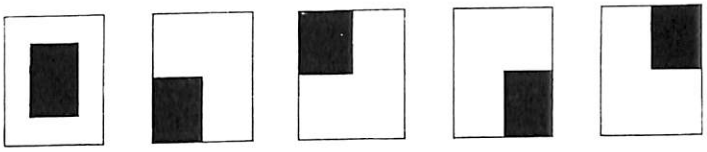
PRINT ENTIRE NEGATIVE FIRST, THEN ASK YOURSELF THESE QUESTIONS:

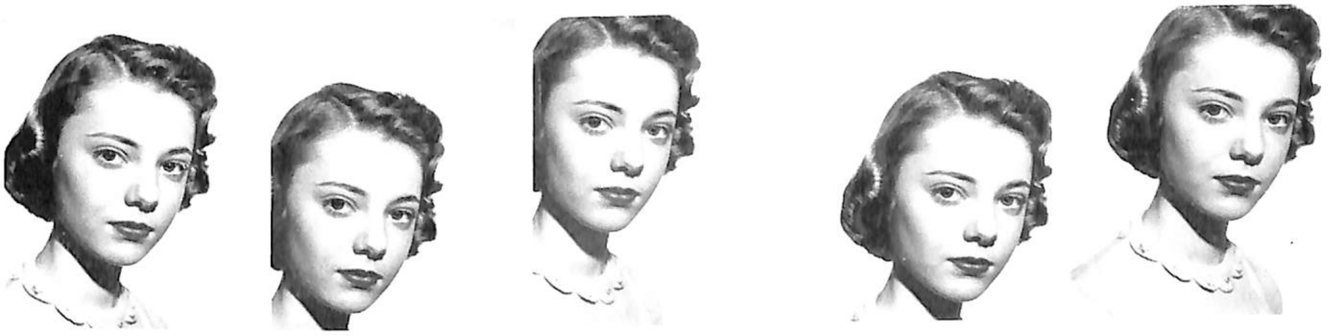


HOW MUCH OF THE IMAGE SHOULD I INCLUDE?



HOW SHOULD I PLACE THE SUBJECT?





SHOULD I TILT THE IMAGE?

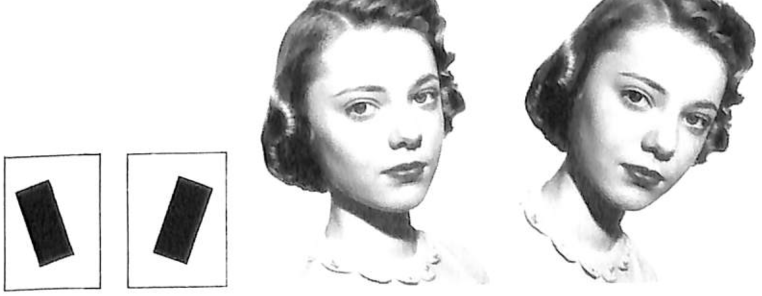
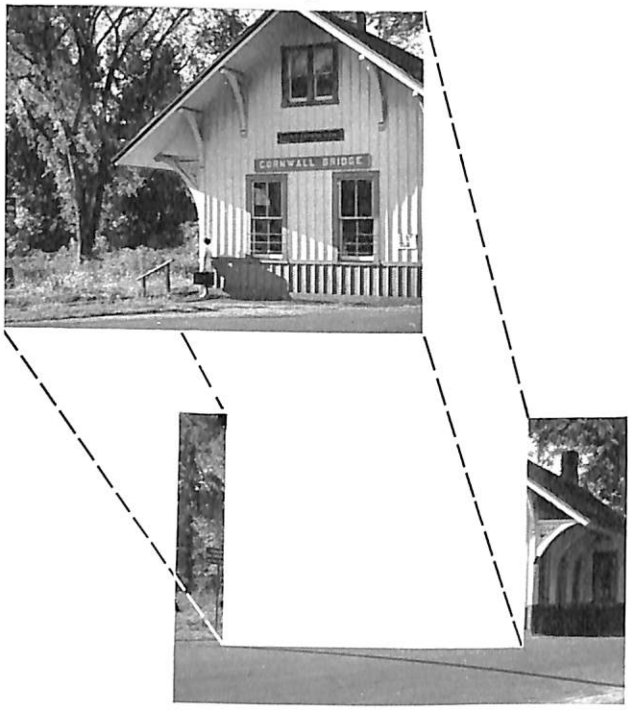


Fig. 18. COMPOSITION. Print the entire negative first, then ask yourself these questions: 1. How much of the image should I include? 2. How should I place the subject? 3. Should I tilt the image? You will find it hard to select one image as the best of the group. In the top row both the medium-sized head and the large one are about equally attractive, as compositions. One person might prefer one, somebody else might prefer the other. In the second row where the image is the same size throughout, there are five possible placements: the one in the center and those in each of the bottom corners are equally pleasing. The third row shows that tilting will not improve this picture, it is best the way it was taken.

Fig. 21



composition or cropping

You should, of course, have composed the picture in the camera viewfinder, putting only essential material on the negative. But if you didn't, the enlarger can help to improve the picture.

There are no rigid rules to guide you when you compose your enlargements. Follow your own taste, and select the composition that pleases you. Ask yourself the following questions:

How much of the image should I include in the print?

How should I place the subject within the picture area?

Should I tilt the image?

Answer these questions while you move the easel around and study the area that falls outside the easel masks. Many times you will find several equally good compositions for a picture. *(See Fig. 18)*

Remember, however, that every picture is different. *You have to try each size, position and tilt for every enlargement* because what is good for one subject can be wrong for another, and vice versa.

A few examples (at right) will help to clarify the idea of composition during enlarging. Figure 21 (top illustration) shows the final print, as well as the area that was eliminated during enlarging from the full negative. The final print has more impact than the image from the full negative. The area that was eliminated from the image during enlarging contains only useless areas that would only detract from the main subject if they were included in the enlargement.

Figure 22 (center illustration) shows the final print and the area eliminated during enlarging. Can you see how important it is to eliminate as much as possible from the picture to gain impact?

Figure 23 (bottom illustration) also shows the final print and the area that was eliminated. The head of the cat was not only enlarged, it was also tilted forward. The eliminated area shows only an expanse of out-of-focus fur lacking detail.

Fig. 22

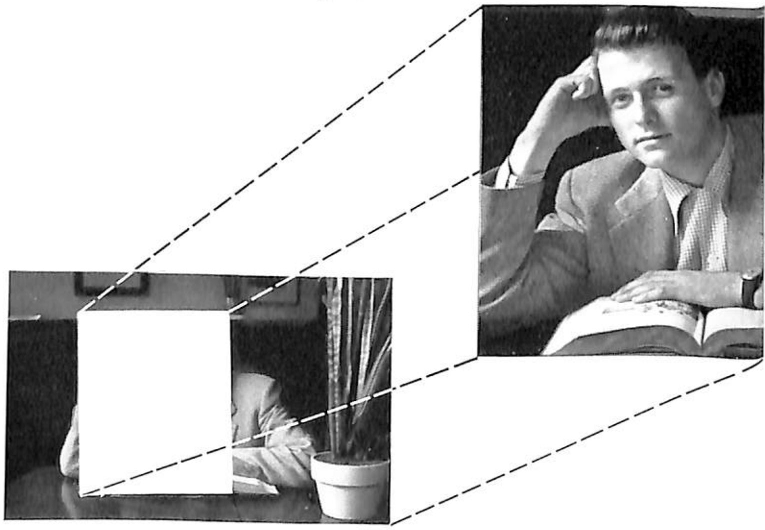
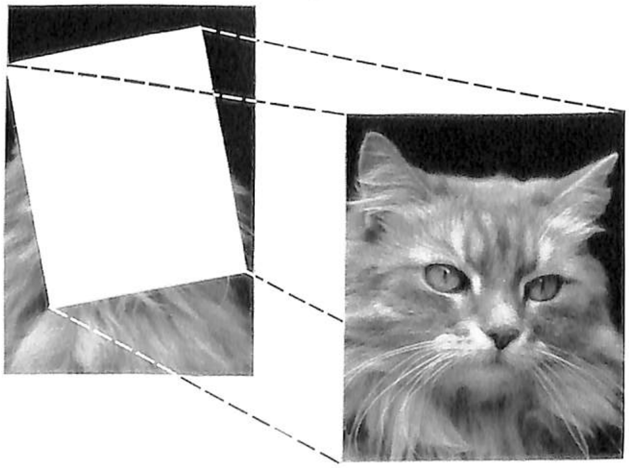


Fig. 23



COMPOSITION. The L-shaped cardboards *(Fig. 19)* aid in selection of final print shape from full enlargement. This *(Fig. 20)* is how composition, also called "cropping," is worked out with L-shaped cardboards.

Fig. 19

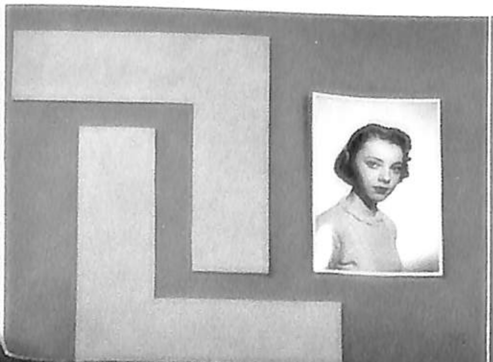
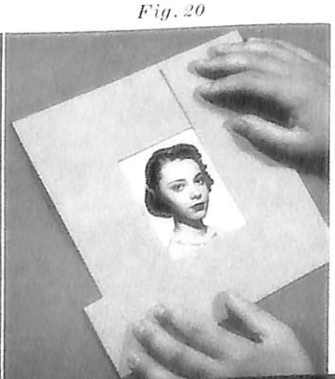


Fig. 20



make a test strip

When you have selected the composition you want, check the sharpness of the image on the easel and stop down the enlarger lens about three stops. This will assure you of an exposure time long enough to control and repeat without difficulty.

Take a small piece of enlarging paper cut from a full sheet and lay it over the most important part of the projected image while the red safety filter is in place in front of the lens. (Incidentally, don't try to focus the image with the red filter in place. Focus and check focus with the filter swung aside.) Then turn off the enlarger, swing the red filter out of the way and turn on the enlarger to expose the test-strip. If your enlarger has no red filter, it is still easy to place the test strip in position, even with the enlarger turned off. *(Fig. 24)* Just locate the area you want while the enlarger is on; you will remember it long enough to place the strip while the enlarger is off.

As a start, expose the test strip for 10 seconds and develop it *for the full time* recommended by the manufacturer of the paper, regardless of what the test-strip looks like. If it turns out to be too light, increase the exposure time; if it is too dark, shorten the exposure. Keep making test-strips until you get one that is just right when developed for the full time. A little experience will help you make a very close-to-exact guess the first time on every test strip.

After you have made a satisfactory test-strip, the next step is to make a full print with the same exposure. To process the full print, slide it quickly and smoothly into the developer, holding and agitating it in the developer with a pair of tongs, rather than with your fingers. *(See bottom of page)* Tongs are available in any photo store. When development is complete, lift out the print, let it drain for a few seconds, drop it into the shortstop bath, and agitate it for about 30 seconds *with another pair of tongs.* Drain it, and then immerse it in the hypo; agitate it there for a few seconds; let it stand for a minute or so, then agitate it again. Let the print stay in the hypo for the prescribed time.

A test strip helps you to determine the proper print exposure time, but there is no set rule to tell you just how dark your prints should be. *(See Figs. 27-32.)* Select the best print after they are washed and dried.

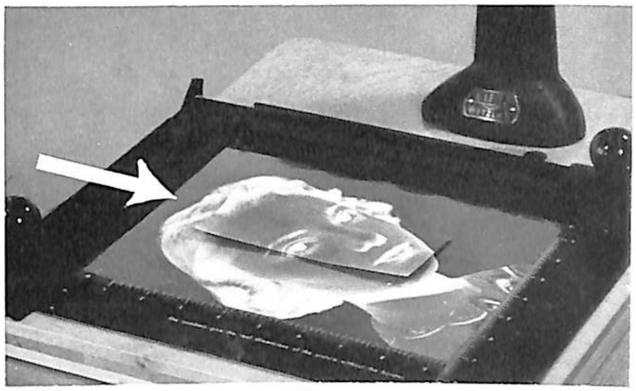


Fig. 24

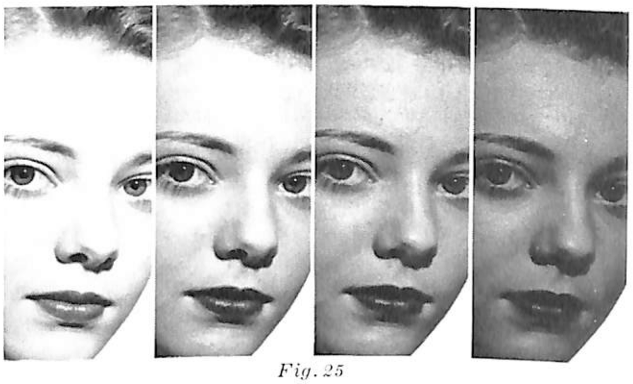


Fig. 25

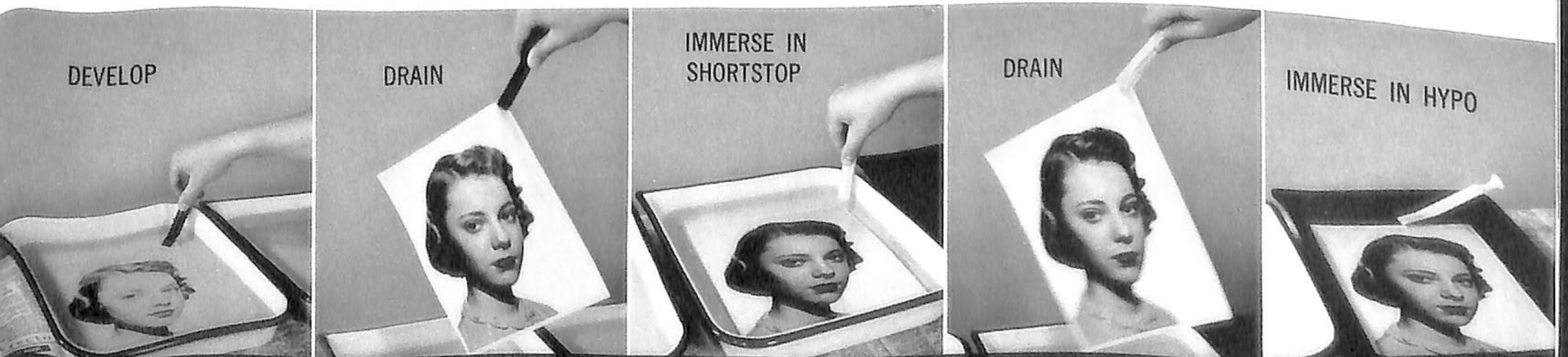
TEST STRIPS. Small piece of print paper (*Fig. 24*, arrow) serves as test for exposure of full print. (*Fig. 25*) Set of test strips shows that exposure time of second from left will give best result.

print contrast

Contrast is another aspect of printing which calls for decision and control. Print contrast corresponds to negative contrast in that it is the difference between the lightest and darkest parts. It can be controlled by using an enlarging paper of the proper contrast grade, or the proper filter with variable contrast papers. The higher the number of the paper or filter, the more contrasty the print will be, and vice-versa.

Trial-and-error will have to be your first teacher in handling contrast. Make a print with any paper grade that you think to be right, then inspect the print. If it has too much contrast (if the dark parts are too dark, the light parts too light, if details are lost in both parts, if the print looks harsh, unpleasant) then change to a softer, lower contrast number paper or filter. If the print has too little contrast (if it appears to be gray, if it lacks sparkle, if there is not enough difference in tone between light and dark parts) then change to a harder, higher contrast num-

Fig. 26. DEVELOPING PROCEDURE. After following steps shown below, "hypo" and wash the print thoroughly.



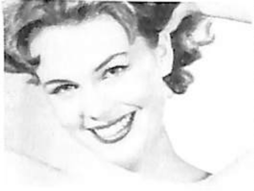


Fig. 27

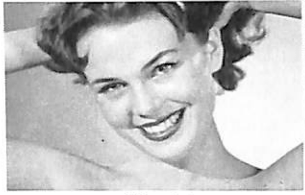


Fig. 28

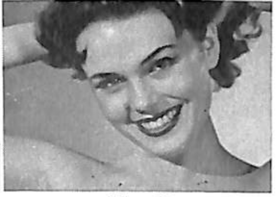


Fig. 29

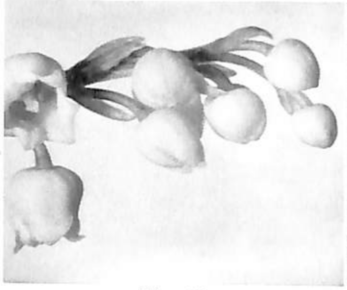


Fig. 30

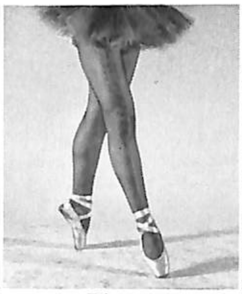


Fig. 31

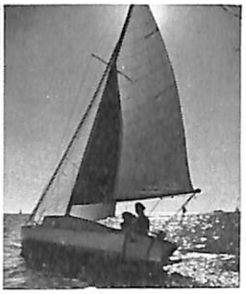


Fig. 32

PRINT DARKNESS. Figures 27, 28, and 29 show three prints of different darkness made from one negative. The tones of figure 28 are like the tones of the real life subject. We could call that print "normal." But figure 27 is also pleasing, even though it is much lighter than figure 28. Figure 29 is acceptable if you look at it without comparing it with the other two prints but too dark when compared with them. Figures 30, 31, and 32 show further examples of print darkness. Figure 30 is fairly light. The subject is a white flower, photographed in front of a white background. If this print were made darker it would spoil the delicate appearance of the subject. The tones of figure 31 approximate the tones of the real life subject. The print is just right. Figure 32 is considerably darker than the scene it shows; the original scene was flooded with light. The dark print, however, brings out the mood of the scene better than a "normal" print would.

ber paper or filter. On many occasions you will modify print contrast to suit the subject, much as you will also modify print darkness.

PRINT CONTRAST. Figures 33 to 35 show prints of different contrast. Figure 34 seems to be just right. Its tones are pleasing, both highlights and shadows are rich in detail, the print has sparkle. Figure 33 is gray, muddy looking, it does not have enough contrast. Figure 35, on the other hand, has too much contrast. It looks harsh, unpleasant. Details are being lost in both highlight and shadow areas. Figure 36 is a pleasing picture, for example, although it has little contrast. The entire print seems to be made up from a variety of gray tones, but the overall effect is satisfactory. Figure 37 has just about average contrast, it appears to be just right. Figure 38 has a lot of contrast, which is just right for that type of picture.

Fig. 33

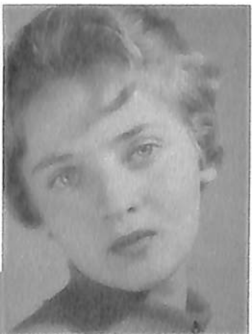


Fig. 34

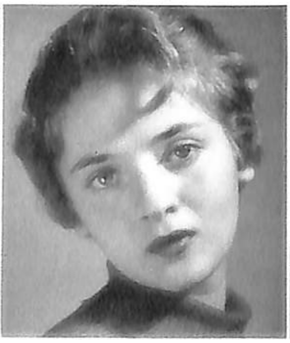


Fig. 35

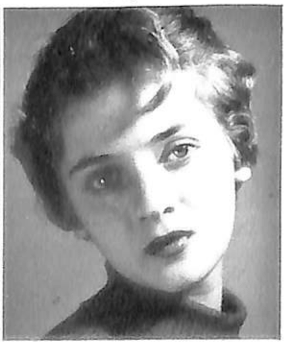


Fig. 36

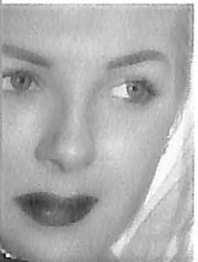


Fig. 37

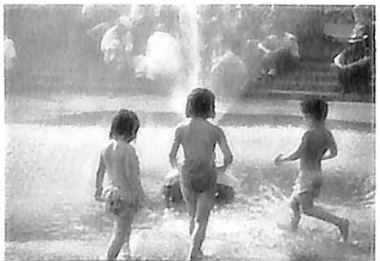
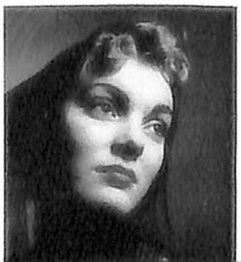


Fig. 38



dodging and burning-in

Frequently, certain parts of the print are too dark or too light, while the overall print is just right. When this happens, you have to resort to local control, which is one of the most important "secrets" of good print-making.

Dodging, or preserving detail in dark areas of the print, is easy. It is done with a small piece of appropriately shaped black paper attached to an improvised wire handle. In dodging, move the wire handle constantly from side to side to prevent its shadow from registering on the print in the form of a light streak, while you keep the black paper over the area to be dodged. At the same time move the black paper up and down slightly to prevent the dodged area from having sharply defined borders.

DODGING. In figure 39 the overall print appears to be just right, but the girl's face is too dark. In figure 40 the face has been lightened by dodging. Figure 41 shows how it was done.

Fig. 39

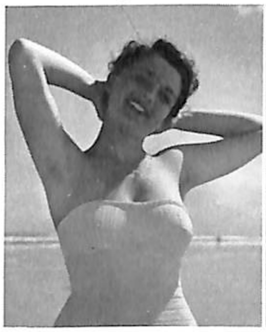


Fig. 40

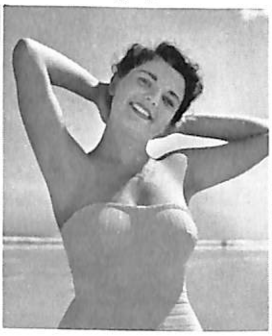


Fig. 41

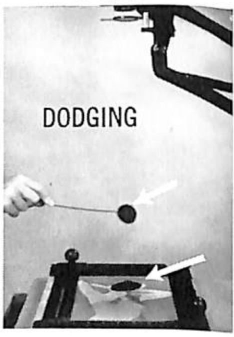


Fig. 42

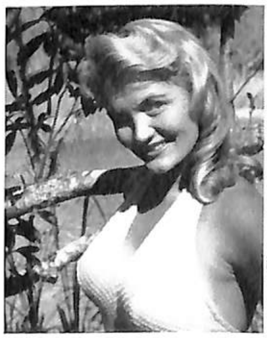


Fig. 43

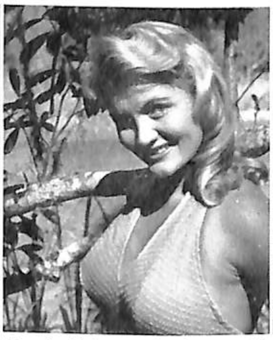
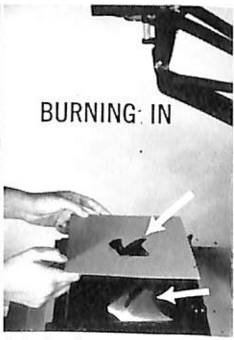


Fig. 44



BURNING IN. In figure 42 the bathing suit is too light, looks washed out, lacks detail. In figure 43, the bathing suit has been darkened by burning-in. Figure 44 shows how it was done.

If the area to be dodged is along the edge of the picture you don't need a wire handle, you can dodge with your hand, or fingers, by holding them above the area for part of the overall exposure time.

To burn in details we give extra exposure to those areas which are too light. Burning in is done with the help of an opaque cardboard held above the enlarging paper in the easel. A hole is made in the cardboard, corresponding in shape to the area to be darkened, but somewhat smaller in size. After the overall exposure is completed, additional exposure is given to the too light area through the hole in the cardboard. The cardboard is moved up and down slightly to prevent the burned-in area from having sharply defined edges. Skilled printers often use their hands alone as a mask for burning in areas.

All dodging is done *during* the overall exposure, all burning in is done *after* the overall exposure has been completed. Dodging and burning-in times should be determined by test-strips.

print drying, mounting, spotting

If need be, processed and thoroughly washed prints can be dried like clothes, by hanging them on a line with clothespins. A clothespin is attached to each corner; the two on the bottom act as weights to prevent excessive curling as the print dries. A blotter-roll, sold in photo stores, can also be used to dry prints. Glossy prints must be made on glossy-surfaced paper and dried and polished ferrotype tins.

Prints can be mounted in one of several ways. Rubber cement is perhaps the simplest to use. Just spread the rubber cement on both print and mount, let it dry, then press the prints together. Library paste is also practical, but a little messy to use. The best, cleanest and most permanent method of print mounting is done with dry-mounting tissue, which is placed between mount and print. The print is then pressed with a hot iron, or it is put into a special dry-mounting press which presses the tissue, print and mount into a permanent sandwich.

The final step in print making is spotting. When you examine the print closely you will find tiny white spots, caused by dust on the film, paper, or condenser lens. You may also find black spots, resulting from tiny holes ("pinholes") in the negative. Both can be removed by spotting. The white spots are filled in with spotting colors applied with a fine camel's hair brush, while the dark spots can be lightly shaved down in density by gentle use of one corner of a single-edge razor blade.

But even the best spotting and knife work can never replace order and cleanliness in your Leica technique and your dark-room. It takes less time to avoid print flaws than to correct them.

THE GOAL: A GOOD PRINT. Figure 46 is the finished form of figure 45. The area around the edge of the print was burned in considerably, then the print was retouched. The skin was cleaned up, the hairline was filled in a little, the whites of the eyes were cleaned, eyelashes and eyebrows were fixed, etc. Spotting enables you to give a raw print a finished, professional appearance.

Fig. 45

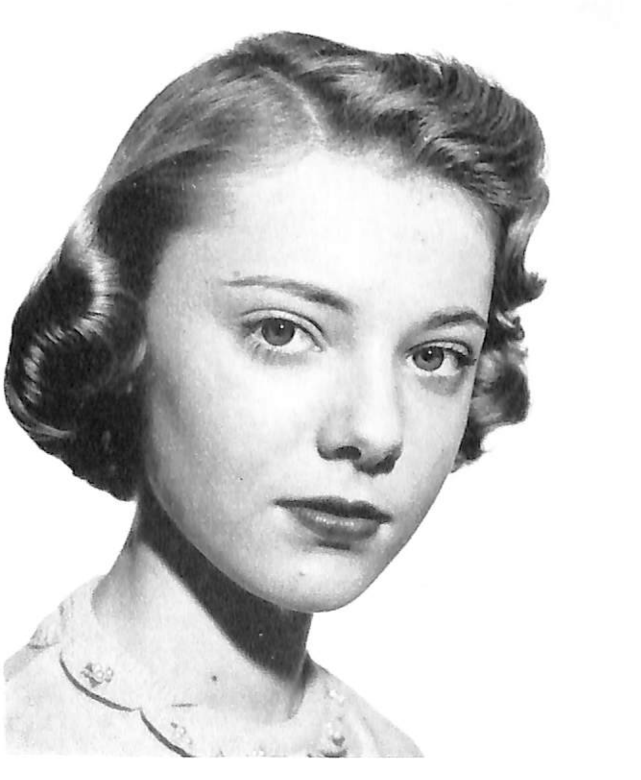
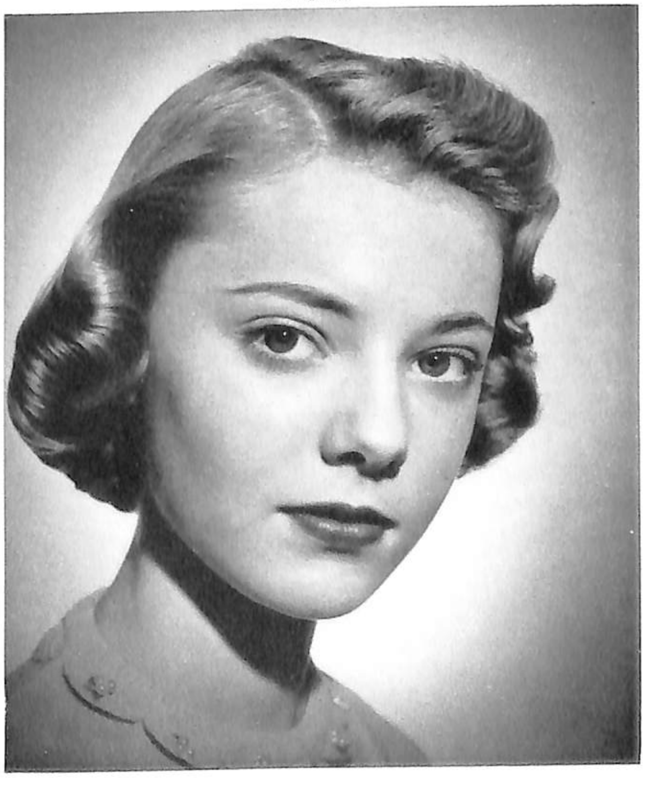


Fig. 46



industry's new tool—35mm / *photographs by Maynard Frank Wolfe*

plant photographs seek editorial look

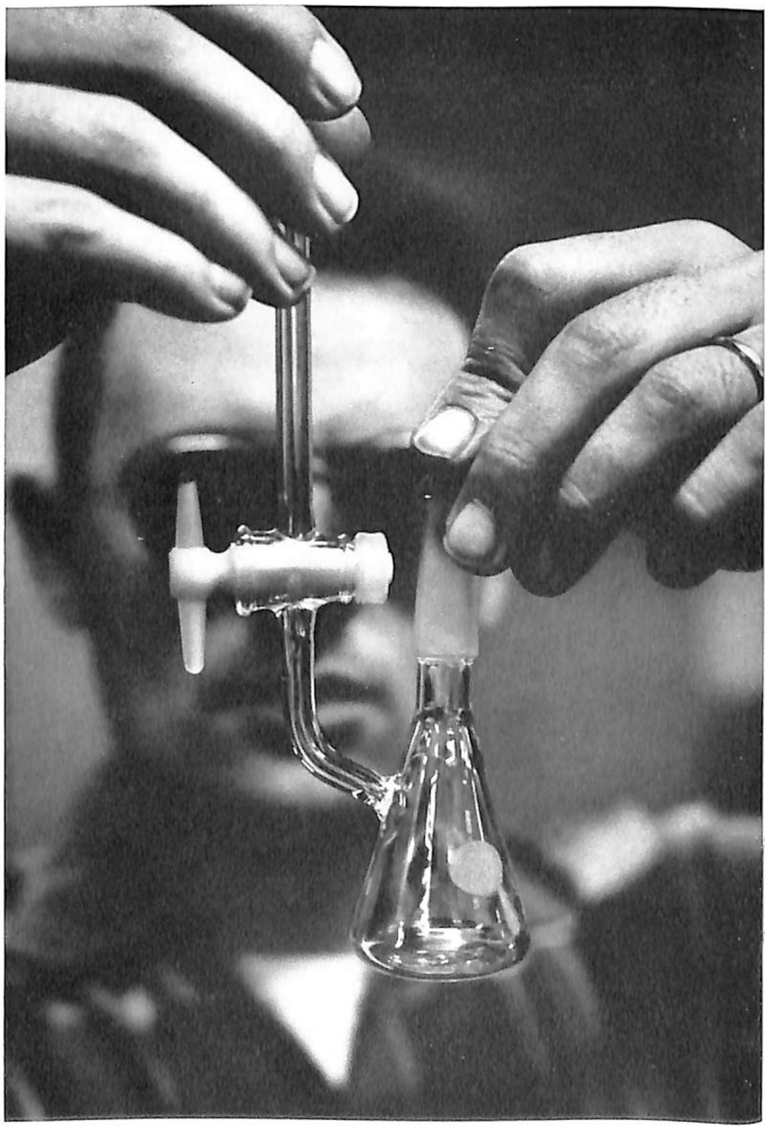
American industry long ago discovered the value of pictures in telling its story. But it is only recently that photojournalists have been asked to bring their special approach and techniques to industrial photography. With their arrival, the too-familiar stiff and self-conscious pictures of "The Company" are on the way out. A quiet revolution is under way.

The vital yet relaxed pictures that industry now demands are used not only in company publications but in advertising, annual reports, employee training, quality control, inspection and research as well.

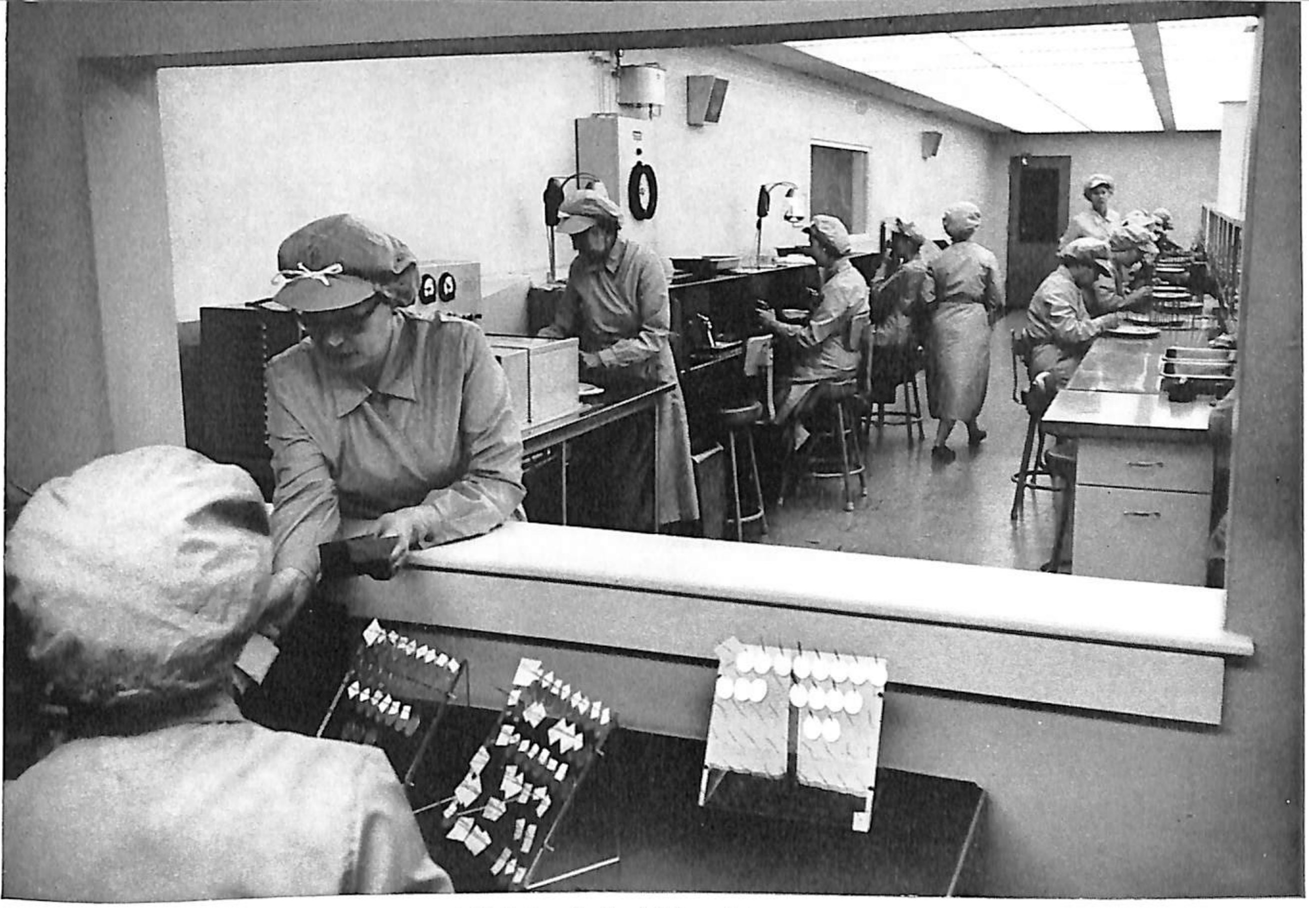
These photographs show some of the variety of work which the photographer of industry is being called on to make. The author, a free-lance magazine and industrial photographer, found that his Leica offered unprecedented freedom of action in location shooting. Its unobtrusiveness helped to give the same quality of immediacy and intimacy to industrial pictures that it does to the pages of our outstanding picture magazines.

Photos selected from the Leica Gallery, New York City.

The Conference Room. Fast, long-focus lenses and a quiet shutter have gained admission for the 35mm camera to conferences formerly barred to photographers. Forceful closeups can be made unobtrusively without interrupting the conferees.

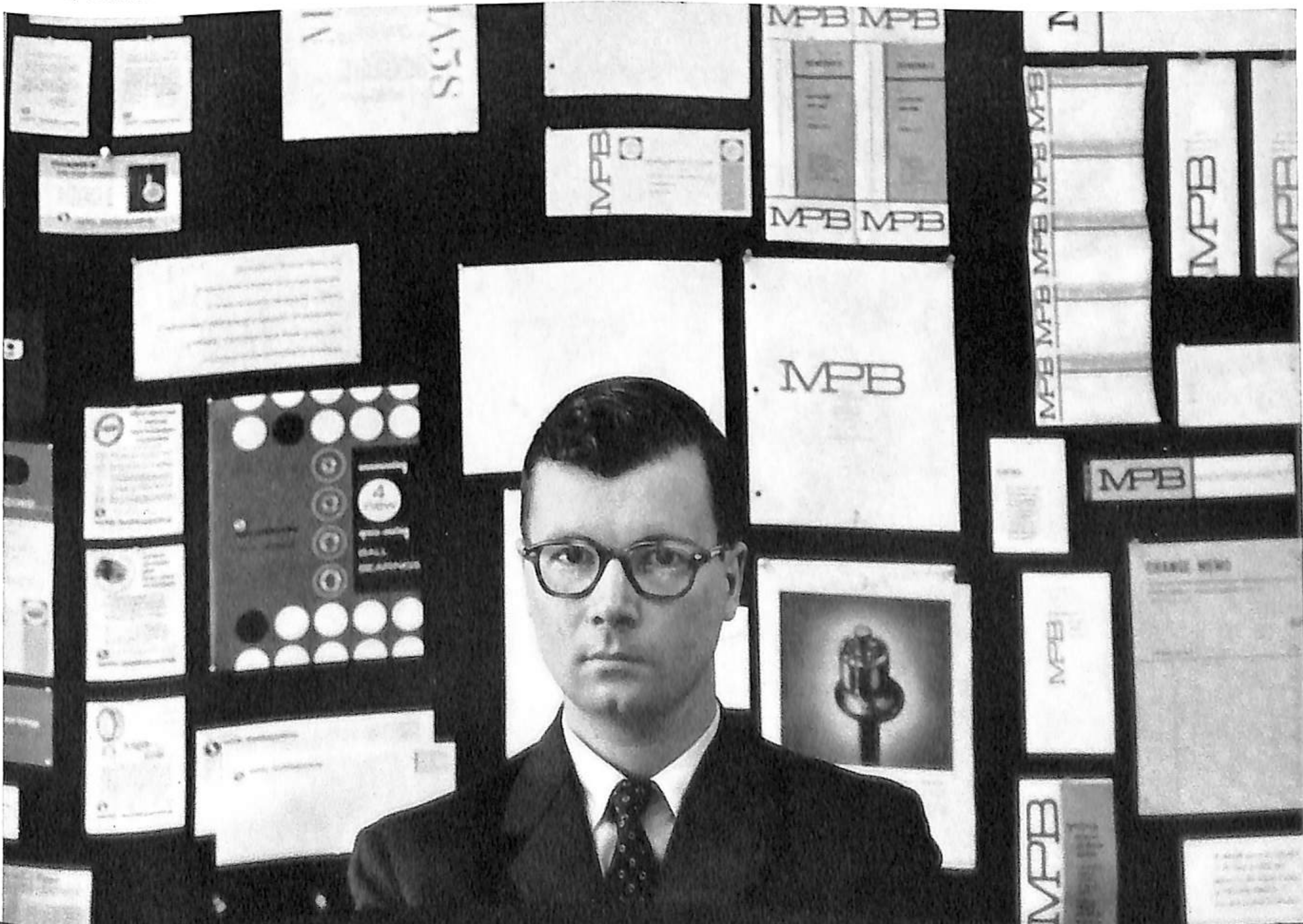


Editorial. Custom-made laboratory equipment, still dependent on the glass-blower's skill, makes a striking close-up and helps to tell part of the story of the research work of Texaco Inc. Using the Dual-Range Summicron at about two feet away, the author emphasized the shape and texture of the glass while suggesting the skilled craftsman responsible for the device.



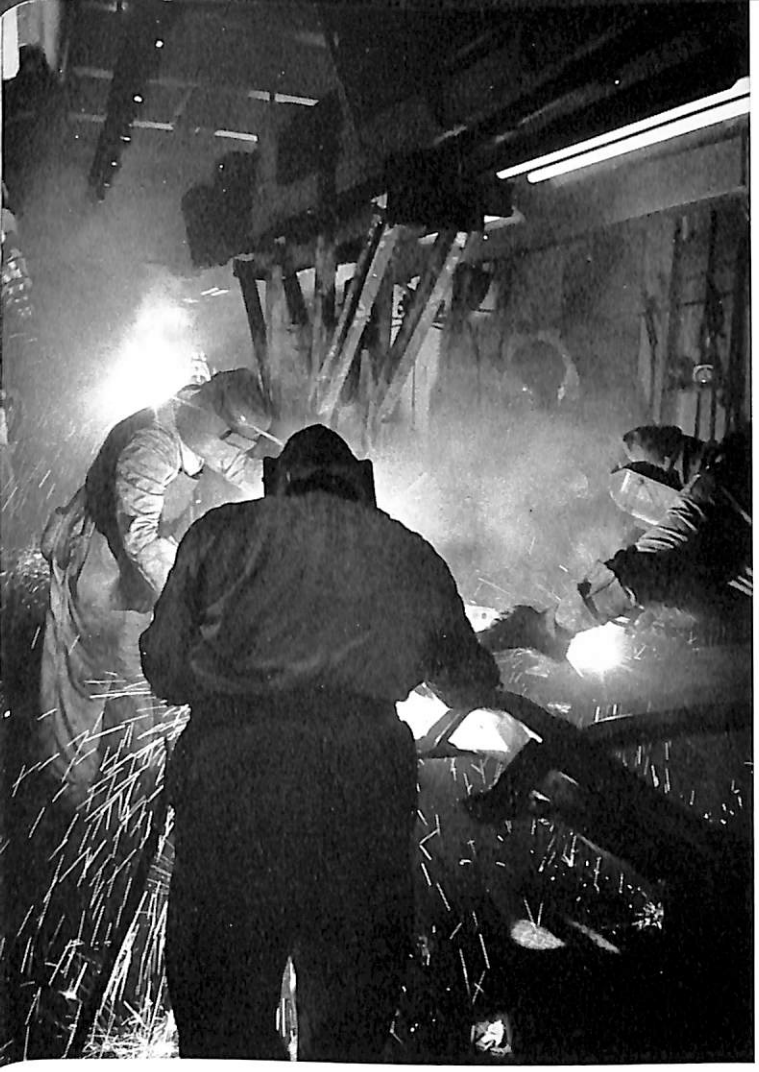
Annual Report. The small camera, hand-held, brings back striking pictures, even from areas like this bearing assembly room where supplementary photo lights were prohibited. Tremendous depth of field was achieved by using a wide-angle lens.

Executive Portrait. Samuel L. Breck, Jr., advertising manager of Miniature Precision Bearings, Inc., is pictured formally, yet in an exciting, modern way, relating the man to his work. Window light was the sole illumination. Mr. Breck says, "I think 35mm is a really creative tool because its flexibility and its relatively inexpensive operation encourage experimentation."



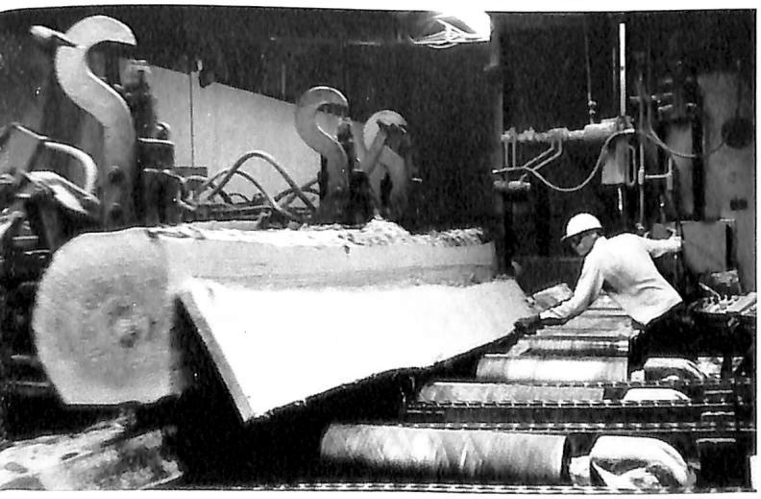
Instructional. Simple equipment (135mm lens and Bellows) and simple lighting (electronic flash ringlight and sidelight) permit powerful, arresting pictures to be made on location with minimum interruption of assembly routines and consequent saving of down-time expense.

industry's new tool *(contd.)*

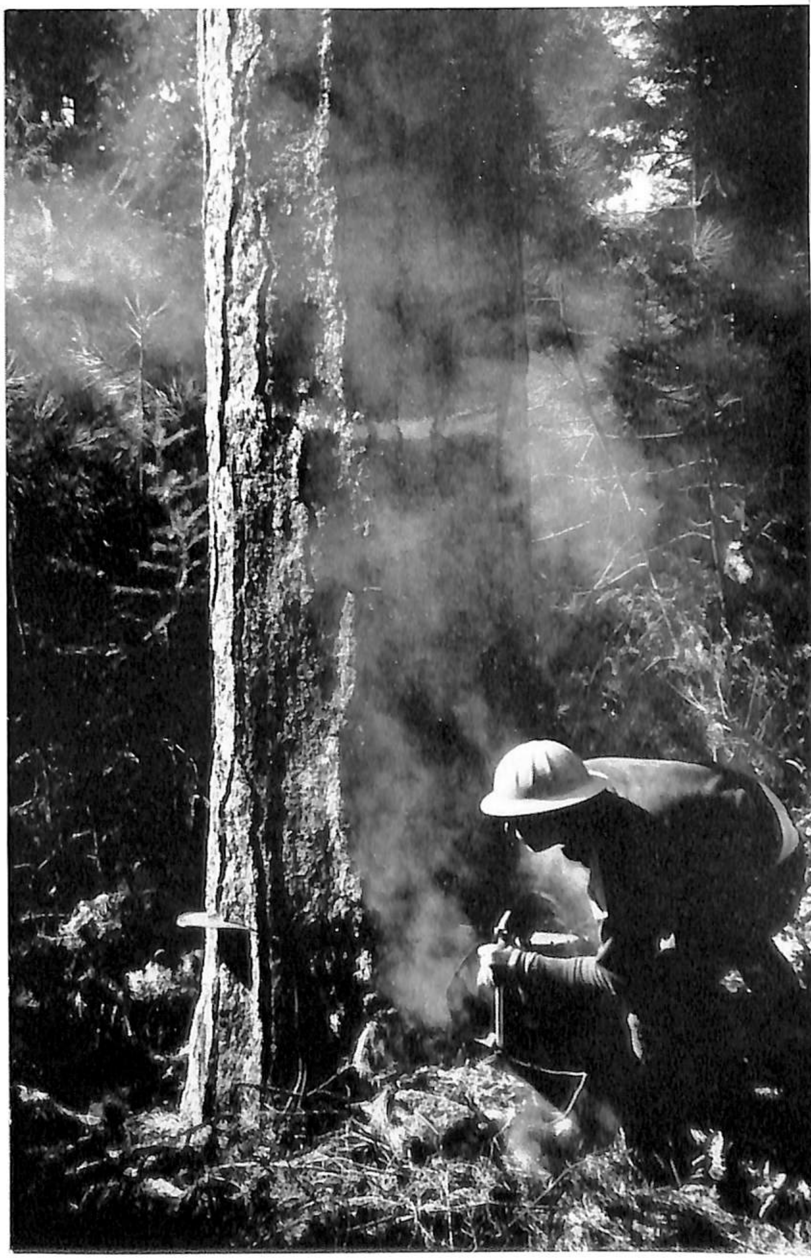


Manuals and Publications. Photograph of Ford welding line shows great depth of field and high fidelity to the actual scene because of small camera's ability to take pictures by existing light. Welding arcs are the main light source. The Ford Motor Company, an extensive user of photography, has some 50 men and women in its photographic department.

High-Hazard Areas. "In fire-hazard areas of the sawmills and forests we find that 35mm cameras are a 'must.' They get the picture without hot, dangerous, extra lighting equipment."—*Diamond-Gardner Corporation.* No artificial light of any kind was permitted in this saw room at the company's mill in Red Bluff, California. Yet a 35mm lens captured an effective picture of the fast-moving header rig moving the log past the saw blade.



Advertising. This action shot of a Sierra Nevada logger was used by the Bullard Company to advertise its safety hats. Exposure for highlight areas emphasizes the hat, subdues shadow detail. Unposed quality adds impact to the scene.



slide binding—is it necessary? / *Bill Bard*

yes, for protection, crisp projection, and creativity, too

Why bother to put your transparencies between glass? Most modern projectors will accept both glass- and cardboard-mounted slides interchangeably—even intermixed. The new Pradovit F projector even provides for remote refocusing which becomes necessary when cardboard-mounted slides "pop." So, why not just relax and not go looking for extra work?

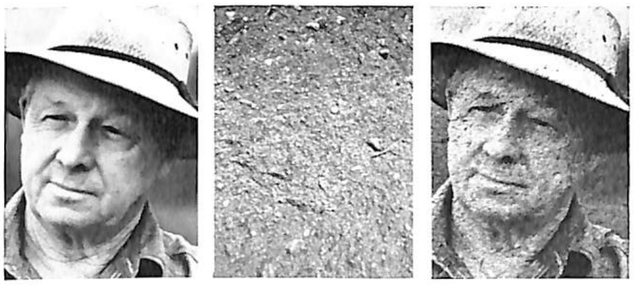
Unfortunately, the case against relaxing is a strong one. Consider the effort and skill that went into designing and making your camera. You probably chose it in the first place because it takes such sharp pictures. So, unless you carry that crispness through to the screen, you aren't getting what you paid for. And the only way to retain a sharp screen image is to hold the film as flat in the projector as it was in the camera—by binding it between glass.

In cardboard mounts, slides rarely, if ever, lie truly flat. And when a projector beam shoots through them, they "pop" into the form of an arc so that the center of the slide is no longer in the focal plane of the projector lens. You must then refocus to sharpen the image of the center. Since the slide is no longer flat, it cannot be brought into critical overall focus. Then, too, cardboard mounts themselves get bent and begin to act up in the changer. They can even stick in the changer mechanism, turning a friendly slide show into a first-class headache.

The protection offered by glass binding against scratches, fingermarks and general ruination, is obvious. If you show your slides frequently, you must be especially wary about these slide-killers.

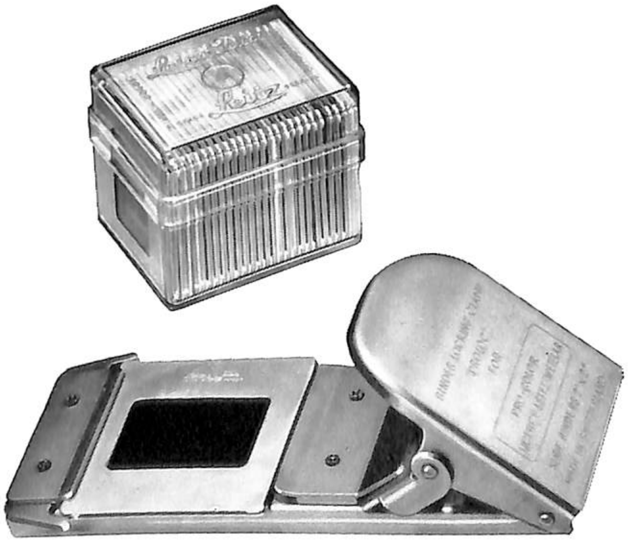
creative slide-binding

Another advantage of glass mounting, a creative one that is not often taken advantage of, is that of second-guessing your original composition, or even the picture itself. When using regular slide glass, masks and tape, you can crop your transparency by sliding two slide masks over one another, taping them together when you get the most effective framing, and trimming off the excess paper. You can also use masks with special openings and shapes such as ovals, circles and triangles. These latter are products of Gemounts, Detroit, Mich. Your dealer should be able to get them for you. One of the most interesting fields for experiment is montage work with color transparencies. Two slides can be bound together, one atop the other, to make a new picture completely different from either of its two components.



1 + 1 = 1. Two pictures combine into one, and one farmer becomes all farmers when a photo of textured earth is bound with a straight portrait. Many advertising pictures are made with montage technique for extra visual impact.

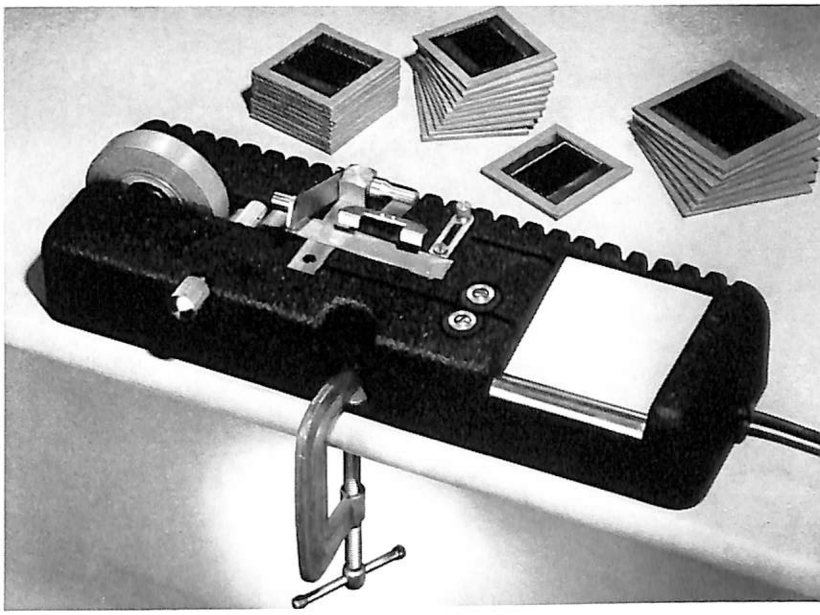
One disadvantage to glass binding is the possibility of Newton's Rings forming. These result from an interference phenomenon that occurs when the glossy side of a transparency touches the surface of one of the binding glasses. Its effect is a series of multicolored irregular rings which appear on the screen



SIMPLE AND EASY. Partially assembled binders like the Leitz Per-O-Color offer a quick way to protect valuable slides. The Proloc Rapid Fastener seals the glass-plastic-aluminum sandwich in two motions. Plastic storage box holds 25 bound transparencies for convenient filing.

and degrade the image. But you can easily avoid Newton's Rings by inserting a thin metal mask between the glass and the shiny side of the transparency when you bind up the "sandwich." An even more elegant solution to the problem is to use the specially treated glass available with certain brands of binders, such as the Per-O-Color mounts. While perfectly transparent, the glass is surface-etched in such a way as to prevent the contact between glass and film which creates Newton's Rings.

Mounts such as the Per-O-Color are excellent for fast, easy binding; they offer extremely thin binders which work in any automatic slide changer. For the most economy, combined with ease and excellence, especially when large numbers of slides are involved, a binding device like the Leitz Bindomat is the answer.



FOR VOLUME BINDING. The lowest-cost way to bind slides in large numbers is with the Leitz Bindomat. This device uses glass, masks and tape in their least expensive form. It comes complete with "C" clamp and materials to bind 100 slides.

focusing on...

new braun universal photoeye. Any speedlight becomes an obedient slave when hooked up to the new Braun FZ-1 photocell, providing remote-control multiple extension flash lighting effects. Special features of the new unit are extreme compactness, versatility and sensitivity.

Clad in its handsome, and practically indestructible, gray plastic case the FZ-1 measures only 3⅜" high, 2⅝" deep, and is only 1⅜" thick. Loaded with two batteries it weighs in at less than seven ounces.

A three-way switch atop the unit regulates its sensitivity from (1) low to (2) medium to (3) high. In the low-sensitivity position the photocell is able to trigger a second unit when receiving the direct flash of a small Braun Hobby unit from a distance of approximately 15 feet. Remote control of units as far away as 100 feet is made possible by switching to the high-sensitivity range. By means of this high-sensitivity switch control the photocell can be adjusted to operate effectively from indirect, or "bounce" light and can handle as many as two slaves simultaneously. This arrangement also enables the user to provide the degree of sensitivity required to trigger just about any existing portable electronic flash units.

The ultra-sensitive photoelectric cell is protected by a semi-cylindrical cover which may be fully opened or adjusted to any intermediate opening desired by the user. This is an important (and we believe unique) feature because it prevents temporary photocell deactivation by exposure to raw sunlight (whose UV component is the guilty party) and enables the photographer to block off light coming from other nearby speedlights which would otherwise trigger his slaves.

The Braun FZ-1 uses two 30-volt Eveready No. 413

NOW! FOCUS AND CHANGE SLIDES

Supreme ease for you and supreme brilliance for your slides are now possible with the new remote-control Pradovit F projector, created by the makers of the LEICA. Now, from as far away as 14 feet from the projector, you have precision push-button control over both slide changing *and focusing!* Push-button remote control is not an "extra" on the Pradovit —it is standard equipment!

And the highly corrected optical system of the Pradovit F delivers an incredibly brilliant screen image. The Pradovit "300" outperforms many 500-watt projectors. The optical system is superb: Hektor f/2.5 lens (in any of 4 focal lengths), coated aspheric condenser, specially designed reflector and heat filter.

See the new Pradovit for yourself. You'll be surprised to see how quickly an automatic projector can recycle, how quietly it can operate, how well it can intermix 35mm and Superslides, or cardboard and glass-mounted slides.

Take your favorite color slides to your Leica dealer. Let him show you how good they really are—on a Pradovit.

Pradovit F Remote-Control Projector complete with 300-watt bulb, 100mm (4") Hektor f/2.5 lens, remote-control focusing and changing, 30-slide magazine, and snap-on cover. **$168.00**
Ultrasonic, Cord-Free Remote Control:
Two high-frequency signals control
focusing and changing from up to a hundred feet away.
Ideal for lecturers and teachers. $99.00

focusing on . . . *(contd.)*

batteries which are readily loaded by removing the back cover plate's coin-slotted locking screw. A standard "PC" cord connection is provided at the lower left-hand side of the unit and an ordinary flash cord is run directly to the enslaved electronic flash unit. Two brass bushings in the base (one European, the other a standard American "quarter-twenty" tripod thread) provide a ready means of attaching the photocell to a variety of widely available clamps and other devices such as a Leitz universal ball-and-socket head. List price of the Braun FZ-1 photocell without connecting cord or batteries, is $22.50. The connecting cord is $2.75, batteries are $1.75 each. Look for a report on remote slave-flash photography in an upcoming issue of *Leica Photography*.

postal portfolio. Some months ago we learned that Robert Johnsen of South Bend, Wash. was planning to set up a Northwest Leica Postal Portfolio in his area. He was planning to keep his Portfolio group reasonably close-knit geographically, not more than 500 miles apart at most.

In case you are not familiar with Postal Portfolios, they are traveling groups of prints, mailed in turn to each member of the participating group. The prints are contributed by each member of the Portfolio for criticism and suggestions. In this way, members have the chance to improve their work by contact with other photographers, even though they may not want or be able to join a camera club and attend meetings.

Mr. Johnsen has asked that Leica owners in "my area" of Western Washington and Oregon write to him if they are interested in joining such a Postal Portfolio. His address is Box 384, South Bend, Wash.

new slide magazine 5-pack. The 30-slide magazine for the Pradovit F and other Leitz projectors is now available in a special 5-magazine package. Price is $8.25, a considerable saving over the single unit price.

peeled eye dep't. Sharp-eyed readers have asked where to get a "wide-angle 90mm lens for the Leica." They claim they would need one to duplicate the effect achieved in George Ward's portrait in our last issue's "Portfolio." That is, George included the entire head of his subject in the picture while shooting from close enough to introduce purposeful distortion. The solution to the puzzle is, of course, less challenging than the concept of a wide-angle 90mm. A typographical error converted what should have been 50mm Elmar into a 90mm Elmar.

FROM
ANYWHERE
IN THE ROOM...

NEW LEITZ PRADOVIT F
REMOTE-CONTROL PROJECTOR

BRINGS OUT THE BEST IN EVERY COLOR SLIDE

Leica

E. LEITZ, INC., 468 FOURTH AVENUE, NEW YORK 16, N.Y.
Distributors of the world-famous products of
Ernst Leitz G. m. b. H., Wetzlar, Germany—Ernst Leitz Canada Ltd.
LEICA CAMERAS · LENSES · MICROSCOPES · BINOCULARS

33159

spotlight...

Comprehensive exhibition of photographs by the late *Dan Weiner* was seen at New York's Time and Life Building last June. Of Dan Weiner, Pierce Fredericks, picture editor of The New York Times Magazine, has said: "It should be remembered about Dan that he was as good a journalist as he was a photographer...his breadth of knowledge and of interest, his perceptive evaluations of the human element at work—these qualities were all superb." ...*Fred and Jo Mazzulla* have produced an Historical Album of Colorado, illustrated with photos from their outstanding collection of early pictures of the west. Fred was pictured in "Life" magazine in one of the "Winning of the West" issues, his Model B Leica close at hand...A number of the seven awards won by Harry Eisenberg, 17, in the 1959 Scholastic-Ansco Photography Contest were given to his Leica photographs...Editor-Photographer *Dennis J. Cipnic* reports that even porpoises love Leicas. He says that during an underwater shooting session last summer, the click of his M-2's shutter attracted these high-IQ mammals like "the love call of another porpoise"... *Ingemar Johansson*, world heavyweight champion boxer, took plenty of pictures of the U.S. with his Leica while training for last summer's title bout... Look Photo Contest-Sports Award Winner, *Dick Crawford, Jr.*, of Richmond, Virginia won his prize with an M-3 shot of a jumping horse...The work of *Ihei Kimura*, "grand old man" of Japanese photography, is the subject of no less than seven books published in Japan. Kimura has used a Leica for more than 25 years, first achieving fame for portraiture in 1933...*Donald H. Menzel*, Director of Harvard College Observatory, used a Leica and Micro Ibso to aid in recording his observations of the occultation of the star Regulus by the planet Venus—a once-in-1000-years event...*Al Bearden* writes that he had just three or four minutes in which to shoot an entire series of pictures on postnatal physical tests of infants which appeared in a recent issue of "The Johns Hopkins Magazine." By using his Dual-Range Summicron Al says he got ample coverage in the time allotted, making both middle distance shots and the close close-ups (at 2 to 3 feet)...*Gordon N. Converse*, staffer of the Christian Science Monitor, was assigned to photograph a church interior. His 21mm Super Angulon gave results so striking that editors added a brief, boxed story of how the picture had been made ...Jazz pianist *Oscar Peterson*, quoted in "Down Beat" magazine, says of his Leica, "I have one. I think it's a beautiful instrument, with a feel that belongs to it and to no other camera..." *Gloria Hoffman*

a precision 35mm enlarger with 4-way versatility

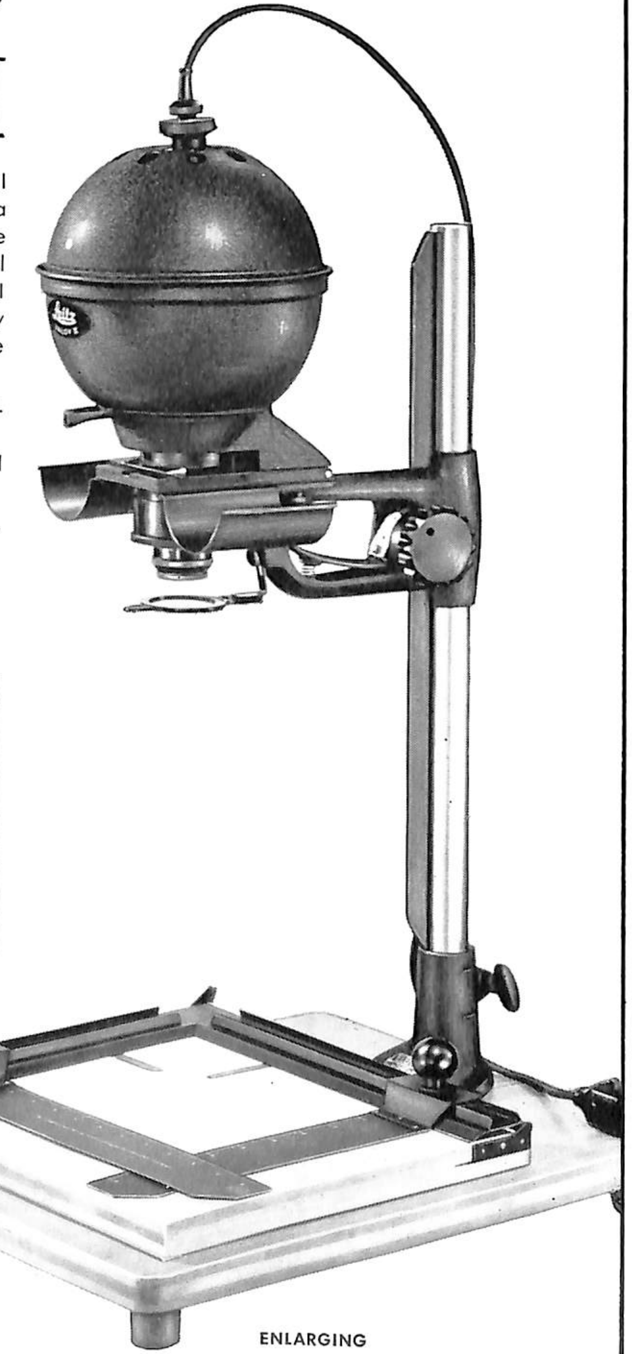
VALOY II

1 *ENLARGING:* The rugged and precise VALOY II features simple and rapid controls that make it a darkroom pleasure. Up and down movement of the enlarger head is easy. Focusing with the large helical mount is smooth, accurate and slip-proof. The VALOY II may be used with a 50mm FOCOTAR lens, specially corrected for enlarging—or the LEICA owner may use his standard 50mm lens.

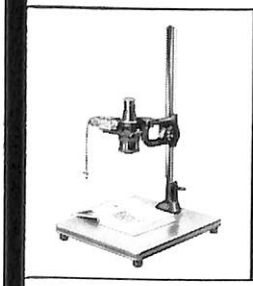
2 *COPYING:* LEICA with FOCOSLIDE and HELICAL FOCUSING MOUNT.

3 *MACROPHOTOGRAPHY:* LEICA with VISOFLEX and BELLOWS FOCUSING DEVICE.

4 *PHOTOMICROGRAPHY:* LEICA with FOCOSLIDE, micro-accessories and microscope.



ENLARGING



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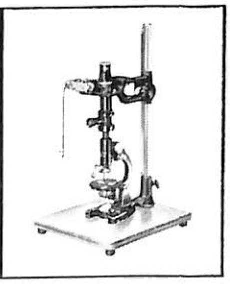

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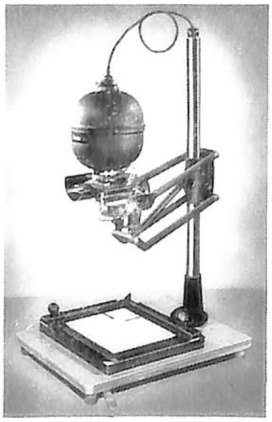

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